

# **LABSOLUTIONS**

pH Measurement

Temperature Measurement	2	Occupational Safety	18
General Informations	3	Burner	19
General Laboratory Supply	4 - 5, 12	Genomics / Proteomics	20
Chromatography	6 - 7	Cell Culture	21
Glass Ware	8 - 9	Microscopy	22 - 23
Sampling / Sample Preparation	10	Calibration Standards	24
Filtration	11	Weighing	25
Liquid Handling	13 - 14	Vacuum Technology	26
Cooling and Heating Technology	15	Centrifugation	27
Personal Protection	16	Heating / Incubation / Stirring	28
Volumetric Solutions	B1	Stirring / Shaking / Mixing	29 - 31
Solvent	B2, B3, B8	UV / IR Spectroscopy	32
Decontamination and Cleaning	B4 - B5		
Microbiological Water Analysis	В6		THEFYER
Membranfiltration	B7		TH.GEYER
all Managers	17		LÖSUNGEN FÜR IHRE IDEEN

В7 17

### **TEMPERATURE MEASUREMENT**

COMBI INFRARED AND INSERTION THERMOMETER TLC 750I-V2





# TEMPERATURE METER TESTO 110 FOOD



- Precise temperature measurement
- HACCP compliant
- Reports as PDF





Handy infrared thermometer for non-contact measurement of surface temperature or core temperature with the foldable insertion probe.

- Practical pocket size for daily use
- Backlit display allows reading in a dark environment
- Rotating display makes it easy to read the measured value
- Double laser pointer
- Optics 8:1
- HACCP and DIN EN 13485 compliant, incl. calibration certificate
- Waterproof housing (IP 65)

Temperature infrared:  $-50 \dots 250$  °C Resolution infrared: 0.1 °C

Accuracy sensor:  $\pm 0.5$  °C (-30 ... 99 °C) Accuracy infrared:  $\pm 1.0$  °C (0 ... 65 °C) Dimensions (WxDxH):  $44 \times 170 \times 23$  mm

Weight: 140 g

TLC 750i-V2 PK Cat. No.

1 6.491 695

1-channel temperature measuring device for simple, fast and precise temperature measurement with external NTC or Pt100 temperature sensors. The temperature measuring device is certified to EN 13485 and HACCP-compliant.

**Scope of supply testo 110 Food:** Temperature meter, protective case TopSafe, calibration protocol, batteries (3 x AA).

**Scope of supply testo 110 Food Set:** Temperature meter, stainless steel food probe, protective case TopSafe, calibration protocol, batteries (3 x AA).

**Protective case:** with mounting magnets and stand-up bracket. Protects the device from impact and dirt.

Туре	External dimensions (W x D x H)	Dim. Probe (Ø x L)	PK	Cat. No.
	mm	mm		
testo 110 Food	60 x 28 x 135	-	1	4.701 464
testo 110 Food Set	60 x 28 x 135	4 x 125	1	4.701 465
Protective case	-	•	1	4.701 466

# LLG-GENERAL-PURPOSE THERMOMETERS, GREEN FILLING



Glass, solid stem, with loop, white backed. Environmentally friendly thermometer, with biodegradable, green spirit filling.

Measuring range	Graduations	Length	PK Cat. No.
°C	°C	mm	
-10/0 110	1.0	300	1 9.235 275
-10/0 110	0.5	300	1 9.235 276
-10/0 150	1.0	300	1 9.235 277
-10 250	2.0	300	1 9.235 278
-10 360	2.0	300	1 9.235 279

# LLG-ADAPTER FOR THERMOMETER, BOROSILICATE GLASS 3.3





Adapter for securing thermometers. With compression screw cap and O-ring.

Ground size	Adapter bore diam.	Neck thread	PK	Cat. No.
NS	mm	GL		
14/23	6	14	2	4.686 179
29/32	6	14	2	4.686 178







# TWO STRONG PARTNERS

We are very proud that CARLO ERBA Reagents has chosen us as the exclusive distribution partner for its chemicals in Germany and Austria.

Analytical and industrial laboratories will now find even more choice in our already comprehensive portfolio - and benefit from being able to order the chemicals portfolio from CARLO ERBA Reagents from a single source.

We are celebrating this with great special offers for you in this issue. Take a look at pages B2 - B3 right now.





# THE STRONG TRIO FOR YOUR LAB TRY IT OUT NOW







Always an attractive alternative when purchasing your laboratory supplies!

- BIOSOLUTE® Life Science products
- CHEMSOLUTE® laboratory chemicals
- LABSOLUTE® consumables

In this issue you will find a selection of more than 5,000 products at top promotional prices.



More information

# **GENERAL LABORATORY SUPPLY**

# SAMPLE BEAKERS, NON STERILE, **BULK PACKAGING**





# WIDE-MOUTH BOTTLES, NATURAL, HDPE



Natural. Closure made from PP. 100% tight. Perfect for storing and transporting samples.



lid. Suit	table to be u		. Transparent. Autoo with food. 60 and 1 ld.		
Capacity	Colour screw cap	Pre-mounted screw cap		PK	Cat. No.
ml		V			7 606 070
60 120	Red Red	Yes No		500 500	7.696 278 7.696 280

Capacity Internal Ext. Height mouth Ø	PK Cat. No.
ml mm mm	
30 21.5 36.5 62.5	12 7.696 141
60 21.5 38.5 85.0	12 7.696 142
125 28.5 50.5 99.0	12 7.696 143
250 32.5 61.5 133.0	12 7.696 144
500 43.5 72.5 170.0	12 7.696 145
1000 53.0 91.5 199.0	6 7.696 146
2000 90.8 119.0 240.0	6 7.696 199

#### 120 120 500 7.696 287 300 7.696 302 Blue Yes 120 120 Green Red 300 7.696 303 300 7.696 304 Yes Yes 300 7.696 305 200 7.696 282 White

# **MEASURING BEAKERS, PP**

No



120



Yellow

Blue











LABSOLUTE® measuring and griffin beakers are made of chemicalresistant, transparent PP and are therefore particularly lightweight. They feature a clearly legible printed scale and a functional spout and are approved for food use and autoclavable up to 121°C. Production is compliant with ISO 7056.

- Smooth surface for quick and easy cleaning
- Excellent resistance to strong, concentrated acids and alkaline solutions/lyes as well as aliphatic alcohols
- Good resistance to ketones, aldehydes and aliphatic and aromatic hydrocarbons



Transparent. With a stable handle and easily readable, printed black graduations on both sides. Therefore, the volume is equally visible for left- and right-handers. To preserve markings, do not clean at temperatures exceeding 60 °C.

- Food-safe product according to regulation (EU) No. 10/2011

Capacity	Grad.	Ø	Height	PK Cat. No.
ml	ml	mm	mm	
100	10	71	73	1 7.693 02
250	25	91	93	1 7.693 02
600	50	118	128	1 7.693 02
1000	50	141	150	1 7.693 02
2000	100	172	192	1 7.693 02
5000	500	223	262	1 7.693 02

Nominal capacity	Grad.	Ext. diam.	Height	PK Cat. No.
ml	ml	mm	mm	
250	5	75	115	1 9.275 738
500	10	97	140	1 9.275 740
1000	10	125	167	1 9.275 742
2000	20	148	212	1 9.275 744
3000	50	170	242	1 9.275 746

# LAB STORAGE SYSTEM MAGLAB, ABS, MAGNETIC



Features four powerful magnets for a secure hold onto most metal surfaces, or create your holding point with the metal plate provided.

- MagRack holds four 50 mL tubes and nine 15 mL tubes (Part of the MagLab series Cat. No. 6.254 581, not to be purchased individually)
- MagWipe holds a wipe box (110 x 210 mm)
- MagPette holds two common pipettors
- MagBox holds miscellaneous accessories
- MagLab Series incl. MagRack, MagWipe, MagPette, MagBox
- Incl. self-adhesive metal plate

Туре	Colour	Dimensions (W x D x H) mm	PK	Cat. No.
MagLab Series	assorted	-	4	6.254 581
MagWipe	green	130 x 91 x 98	1	6.254 583
MagPette	purple	131 x 112 x 76	1	6.254 584
MagBox	orange	130 x 78 x 102	1	6.254 585

# **ASSORTMENT BOX, ABS**





- Replaceable inserts
- Compartment for a sharps container
- With supply drawer
- Built-in side pockets offer additional storage space
- The handle includes a soft rubber grip to reduce hand and finger strain

**Scope of supply:** Tray, 13 or 16 mm OneRack® tube rack, 2 x disposable polystyrene inserts

Туре	Description	Dimensions (W x D x H) mm	PK	Cat. No.
Kit A	Insert for 13 mm Tube Rack	429 x 265 x 172	1	6.243 252
Kit B	Insert for 16 mm Tube Rack	429 x 265 x 172	1	6.238 550

# LABEL PRINTER DYMO® LABELWRITER™ 550 TURBO



DYMO

- Ethernet interface enables LAN network connectivity

Scope of supply: Label printer, 1 x label starter roll (28 x 89 mm), power adapter, power cable, USB cable, quick start guide

Max. label width: 59 mm
Print speed: 90 labels/min.
Weight: 645 g
Power supply: 24 V, 2.5 A

# HIGH-PERFORMANCE LABELS FOR DYMO® LABELWRITER™ 550 TURBO, WHITE

LW Labels with industrial adhesive for secure, permanent adhesion to many surfaces, such as paper, plastic, metal, wood, and glass.

- Scratch and tear-resistant plastic material
- Label printing with direct thermal printing technology
- Pre-assembled labels for quick and easy application
- · Moisture resistant
- BPA-free
- Temperature resistant from -18 to 50  $^{\circ}\text{C}$

Package	Dimensions	PK	Cat. No.
contents	(D x W)		
	mm		
1 roll with 800 labels	32 x 57	1	4.687 583
2 rolls with 450 labels	19 x 64	1	4.687 578
2 rolls with 350 labels	25 x 89	1	4.687 579
2 rolls with 850 labels	25 x 25	1	4.687 580

### LABORATORY TOOLBOX





- Complete set
- For routine works

You can find a detailed description of the contents of the laboratory case in our shop.

Туре	PK	Cat. No.
PROXXON 23650	1	9.306 125

### **HYDROGEN GENERATOR PRECISION HYDROGEN SL 100**

The smallest hydrogen generator in the Precision Hydrogen SL line safely and continuously produces laboratory-quality hydrogen with a purity of 99.995% for GC-FID. The generator is available either by manual or automatic water filling.

- Minimal hydrogen storage in the system
- Very low maintenance requirements
- Auto-shutdown fail-safe

#### **Specifications**

Purity: 99.995%

Max. pressure: 6.9 bar

Required water quality: <1.0 µS/cm

Gas connection: 1 x 1/8" Swagelok

Dimensions (W x D x H): 160 x 355 x 250 mm

Power supply: 100 ... 240 V, 50/60 Hz

Warranty: 2 years





wairancy.	2 years			
Description	Colour	Flow rate	PK	Cat. No.
		L / min.		
With manual water fill	black	0.1	1	4.678 137
With manual water fill	white	0.1	1	4.678 138
With auto water fill	black	0.1	1	4.678 139
With auto water fill	white	0.1	1	4.678 140

### PRECISION THREAD HEADSPACE VIALS ND18



Precision thread headspace vials ND18 made of clear and amber first hydrolytic class glass are a practical alternative to the corresponding crimp neck vials ND20. Thanks to its many thread turns, the precision thread ensures that the septum is pressed firmly against the glass neck, keeping the vial gas-tight.



Type	Description	Capacity	Size	PK	Cat. No.
		ml	mm		
(1)	Clear glass, rounded bottom	10	46 x 22.5	100	7.620 815
(2)	Amber glass, rounded bottom	10	46 x 22.5	100	7.616 895
(3)	Clear glass, rounded bottom	20	75.5 x 22.5	100	7.630 303
(4)	Amber glass, rounded bottom	20	75.5 x 22.5	100	7.621 127
(3)	Amber glass, rounded bottom Clear glass, rounded bottom	10 10 20	46 x 22.5 46 x 22.5 75.5 x 22.5	100 100	7.6 7.6

### PRECISION THREAD SCREW SEALS ND18, MAGNETIC









### WITH BUTYL/PTFE SEPTA

Septa are temperature-resistant from -40 to 120 °C and have excellent chemical properties.

Туре	Description	Hardness	Thickness	PK	Cat. No.
			mm		
(5)	Butyl red / PTFE grey	55° shore A	1.6	100	7.615 717
(6)	Butyl red / PTFE grey, closed	55° shore A	1.6	100	7.622 171

### WITH SILICONE/PTFE SEPTA

Septa are temperature-resistant from -60 to 200 °C and have better purity than septa made of natural rubber or red rubber. However, they have less effective resealability properties and are therefore more suitable for single-injection applications.

Type	Description	Hardness	Thickness	PK	Cat. No.
			mm		
(7)	Silicone transparent blue / PTFE white, UltraClean*	45° shore A	1.3	100	7.630 304
(8)	Silicone white / PTFE blue, UltraClean*	55° shore A	1.5	100	7.621 125
* Tested	and approved by CTC				

### **INLET LINER AND O-RINGS FOR AGILENT GC**

Inlet Liner for Agilent 5890, 6850, 6890, 7890 and HP4890.

- 5 or 25 packs, individually packed
- Complete with instrument-appropriate o-rings and sealing rings
- Each pack is supplied with quality test results

		6.236 751
Annin min	×	6.223 553



Description	diam.	diam.	Lengtn	PK	Cat. No.
	mm	mm	mm		
Split, with Quartz wool	6.3	4.0	78.5	5	9.003 576
Split / Splitless with Single Taper (Quartz Wool)	6.3	4.0	78.5	5	6.236 751
Split/Splitless FocusLiner®	6.3	4.0	78.5	25	6.239 332
Split/Splitless Tapered Focus Liner®	6.3	4.0	78.5	5	6.223 553
Split/Splitless FAST FocusLiner®	6.3	2.3	78.5	5	6.223 554

### CRIMP NECK VIALS AND MICRO-VIALS ND11, WIDE OPENING

Crimp neck vials and micro-vials ND11 made of clear and amber first hydrolytic class glass are used as standard in GC and HPLC. A large selection of micro-inserts is available for these vials.













Туре	Description	Capacity ml	Size mm	PK	Cat. No.
(1)	Clear glass, flat bottom	1.5	32 x 11.6	100	7.663 226
(2)	Amber glass, flat bottom	1.5	32 x 11.6	100	7.663 230
(3)	Clear glass, flat bottom, with label	1.5	32 x 11.6	100	7.663 229
(4)	Amber glass, flat bottom, with label	1.5	32 x 11.6	100	7.664 225
(5)	Clear glass, flat bottom, small opening	1.5	32 x 11.6	100	7.620 829

# **ROLL EDGE ND11 MICRO-INSERTS FOR** VIALS WITH WIDE OPENING, GLASS

The micro-inserts made of first hydrolytic class glass are suitable for

- Short thread vials ND9, with wide opening made of glass or plastic
- Screw neck vials ND10, with wide opening
- Crimp neck vials ND11, with wide opening
- Snap ring vials ND11, with wide opening
- Shell vials, with a nominal volume of 2 ml





Туре	Description	Usable volume	Nominal volume	Size	PK	Cat. No.
		μl	μl	mm		
(6)	Clear glass, conical tip 15 mm	250	340	31 x 6	1000	7.615 290

### **CRIMP SEALS ND11**

### WITH NATURAL RUBBER/TEF SEPTA

These septa are temperature-resistant from -40 to 120 °C and ideal for multiple injections thanks to their excellent resealability properties.

Septa made of natural rubber/butyl/TEF combine the good physical properties of natural rubber (resealability) and the good chemical properties of butyl (analytical cleanliness).









Туре	Description	Hardness	Thickness	PK	Cat. No.
			mm		
(7)	Natural rubber red-orange / TEF transparent, IM quality, clear cap	60° shore A	1.0	100	7.608 142

### WITH REDRUBBER/PTFE SEPTA

These septa with instrument manufacturer's quality are temperature-resistant from -40 to 110 °C. They are easier to penetrate and have lower particle formation than septa made of natural rubber.

Туре	Description	Hardness	Thickness	PK	Cat. No.
			mm		
(8)	RedRubber / PTFE transparent, clear cap	45° shore A	1.0	100	7.663 236

### WITH SILICONE/PTFE SEPTA

These septa are temperature-resistant from -60 to 200 °C and have a better purity than septa made of natural rubber or red rubber. However, they have less effective resealability properties and are therefore more suitable for single-injection applications.

Septa with a double-sided PTFE coating show a very low particle formation during penetration.

Type	Description	Hardness	Thickness	PK	Cat. No.
			mm		
(9)	Silicone white / PTFE red, UltraClean, clear cap	45° shore A	1,3	100	7.663 237
(10)	PTFE red / silicone white / PTFE red, clear cap	45° shore A	1.0	100	6.902 301

### **VIAL RACKS, PP**



The stackable vial racks made of blue PP allow the easy handling and secure transport of sample vials. PP is not transparent, but more robust than acrylic.

Dimensions W x H x D	Positions	For	PK Cat. No.
mm			
200 x 17 x 105 * ND8 screw neck vials	50	ND8*, ND9, ND10, ND11	1 7.654 509





# ERLENMEYER FLASKS, WITH STANDARD GROUND JOINT, BOROSILICATE GLASS 3.3





DIN EN ISO 4797. Borosilicate glass 3.3. Permanent volume scale.

Without stopper. Compatible with all stoppers with standard ground joint made of glass or plastic.

Capacity	Socket	Flask Ø	Height	PK Cat. No.
ml	NS	mm	mm	
25	14/23	42	75	1 7.690 210
50	14/23	51	85	1 7.690 211
100	14/23	64	105	1 7.690 212
50	29/32	51	85	1 7.690 213
100	29/32	64	105	1 7.690 214
200	29/32	79	131	1 7.690 215
250	29/32	85	140	1 7.690 216
300	29/32	87	156	1 7.690 217
500	29/32	105	175	1 7.690 218
1000	29/32	131	220	1 7.690 219
2000	29/32	166	280	1 7.690 220

# LLG-ERLENMEYER FLASKS, WITH A SCREW CAP, BOROSILICATE GLASS 3.3





Erlenmeyer flasks made of borosilicate glass 3.3, screw cap with PTFE liner.

- White graduation and labelling field
- GL thread

Capacity	Thread	PK	Cat. No.
ml	GL		
100	32	2	4.686 198
250	32	2	4.686 199
500	32	2	4.686 200
1000	32	1	4.686 201

# **SEPARATING FUNNELS ACC. TO SQUIBB, BOROSILICATE GLASS 3.3**





Acc. to Squibb. Borosilicate glass 3.3. Comply with DIN ISO 4800. Including PTFE stopcock and PE stopper.

Capacity	Socket	Bore	PK	Cat. No.
ml	NS	mm		
50	19/26	2.5	1	7.690 24
100	19/26	2.5	1	7.690 24
250	29/32	2.5	1	7.690 24
500	29/32	2.5	1	7.690 24
1000	29/32	4.0	1	7.690 24
2000	29/32	4.0	1	7.690 24

# **CRYSTALLIZING DISHES, BOROSILICATE GLASS 3.3**



LABSOLUTE® crystallizing dishes with or without spout are made of high-quality borosilicate glass 3.3 and are therefore extremely temperature-resistant up to 500°C. Therefore the dishes can be easily autoclaved. They have a functional labelling field and are resistant to cold alkaline solutions/lyes and strong acids, with the exception of hydrofluoric acid and hot, concentrated phosphoric acid.



### WITHOUT SPOUT



DIN 12337. Without spout. Big labeling field. Autoclavable.

Capacity	Ø	Height	PK	Cat. No.
ml	mm	mm		
20	40	25	1	7.690 260
40	50	30	1	7.690 261
60	60	35	1	7.690 262
100	70	40	1	7.690 263
150	80	45	1	7.690 264
300	95	55	1	7.690 265
500	115	65	1	7.690 266
900	140	75	1	7.690 267
2000	190	90	1	7.690 268

### WITH SPOUT



DIN 123378 With functional spout. Big labeling field. Autoclavable.

Capacity	Ø	Height	PK	Cat. No.
ml	mm	mm		
20	40	25	1	7.690 250
40	50	30	1	7.690 251
60	60	35	1	7.690 252
100	70	40	1	7.690 253
150	80	45	1	7.690 254
300	95	55	1	7.690 255
500	115	65	1	7.690 256
900	140	75	1	7.690 257
2000	190	90	1	7.690 258

# BEAKERS, BOROSILICATE GLASS 3.3



LABSOLUTE® beakers with durable volume scale and spout are made of high-quality borosilicate glass 3.3 and are therefore extremely temperature-resistant up to 500 °C. The beakers in low and high form comply with DIN 12331 and ISO 3819. They are resistant to cold lyes/alkaline solutions and strong acids, with the exception of hydrofluoric acid and hot, concentrated phosphoric acid.

# VOLUMETRIC FLASKS, CLASS A, WITH PE STOPPER



All LABSOLUTE® clear and amber volumetric flasks with accuracy class A comply with the DIN EN ISO 1042 standard. They are made of high-quality borosilicate glass 3.3 and calibrated to "In" (20 °C). All volumetric flasks are supplied with suitable stoppers made of glass or PE. A batch-specific certificate of conformity can be supplied on request.

### LOW FORM





DIN 12331. ISO 3819. Borosilicate glass 3.3. With volume scale and spout.

Capacity	Ø	Height	PK	Cat. No.
ml	mm	mm		
5	22	30	10	7.690 000
10	26	35	10	7.690 001
25	34	50	10	7.690 002
50	42	60	10	7.690 003
100	50	70	10	7.690 004
150	60	80	10	7.690 005
250	70	95	10	7.690 006
400	80	110	10	7.690 007
600	90	125	10	7.690 008
1000	105	145	10	7.690 010
2000	130	185	4	7.690 011
3000	150	210	4	7.690 012
5000	170	270	2	7.690 013

External beaker diameter, without spout

# **HIGH FORM**

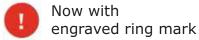


DIN 12331. ISO 3819. Borosilicate glass 3.3. With volume scale and spout.

Capacity	Ø	Height	PK	Cat. No.			
ml	mm	mm					
25	30	55	10	7.690 014			
50	38	70	10	7.690 015			
100	48	80	10	7.690 016			
150	54	95	10	7.690 017			
250	60	120	10	7.690 018			
400	70	130	10	7.690 019			
600	80	150	10	7.690 020			
1000	95	180	10	7.690 022			
2000	120	240	6	7.690 023			
3000	135	280	6	7.690 024			
External be	External beaker diameter, without spout						

### **BLUE PRINTING**





Made from borosilicate glass 3.3. Clear glass. With standard ground joint and PE stopper. Calibrated to "In" (20 °C). Comply with DIN EN ISO 1042. A batch-specific certificate of conformity is available on request.

\* Article 7.691 020, 7.691 022 and 7.691 034 still with printed ring mark.

Capacity	Joint size	Tolerance	PK	Cat. No.
ml	NS	± ml		
5	7/16	0.025	1	7.691 036
5	10/19	0.040	1	7.691 020*
10	7/16	0.025	1	7.691 033
10	10/19	0.040	1	7.691 021
20	10/19	0.040	1	7.691 022*
20	12/21	0.060	1	7.691 034*
25	10/19	0.040	1	7.691 023
25	12/21	0.060	1	7.691 035
50	12/21	0.060	1	7.691 024
50	14/23	0.100	1	7.691 025
100	12/21	0.100	1	7.691 026
100	14/23	0.100	1	7.691 027
200	14/23	0.150	1	7.691 028
250	14/23	0.150	1	7.691 029
500	19/26	0.250	1	7.691 030
1000	24/29	0.400	1	7.691 031
1000	29/32	0.600	1	7.691 037
2000	29/32	0.600	1	7.691 032

### WHITE PRINTING



Made from borosilicate glass 3.3. Amber glass. With standard ground joint and PE stopper. Calibrated to "In" (20 °C). Comply with DIN EN ISO 1042. Especially used for light-sensitive samples. A batch-specific certificate of conformity is available on request.

Capacity	Joint size	Tolerance	PK	Cat. No.
ml	NS	± ml		
5	10/19	0.040	2	7.691 070
10	7/16	0.025	2	7.691 180
10	10/19	0.040	2	7.691 071
20	10/19	0.040	2	7.691 072
25	10/19	0.040	2	7.691 073
50	14/23	0.100	2	7.691 074
100	14/23	0.100	2	7.691 075
200	14/23	0.150	2	7.691 076
250	14/23	0.150	2	7.691 077
500	19/26	0.250	2	7.691 078
1000	24/29	0.400	2	7.691 079
2000	29/32	0.600	1	7.691 080

# **SAMPLING / SAMPLE PREPARATION**

# **CORE DRILL, STAINLESS STEEL V4A**



The core sampler can be used to sample bulk materials which, due to their particle shape, are easily jammed or stuck during sampling. Compared to conventional all-layer samplers for bulk solids, the two-part core sampler has no gaps into which the medium can tilt during sampling. This enables professional sampling of a wide variety of powders and granulates through several layers, e.g. glass beads or metal powder. Depending on the size, the stainless steel sampler can be used for a wide variety of containers, such as big bags or small containers. The bulk material sampler takes a representative core sample and is ideal for use in various areas of laboratory and industry.

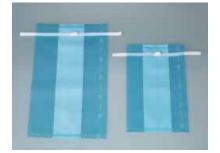
**Scope of delivery:** Core drill (consisting of drill rod and drill tube), fixing clip

Nominal capacity	External (Ø x L)	PK	Cat. No.
ml	mm		
15	15 x 200	1	4.680 865
110	25 x 400	1	4.680 866
230	25 x 800	1	4.680 867

# SAMPLE BAGS STERIBAG BLUE, PE, STERILE







For use in the food, animal feed and pharmaceutical industries. To prevent the danger of foreign matter in production, the sample bags and the tear-off closure are coloured blue.

- Liquid-tight
- Free of RNase, DNase and pyrogens
- With write-on panel

Nominal capacity	Width	Length	PK Cat. No.
ml	mm	mm	
650	140	229	500 4.665 34
1650	178	305	250 4.665 34

# **DISPOSABLE TWEEZERS, PS**







- Serrated handles
- Cleanroom manufactured (cleanroom class 7)
- Food-safe

_				
Form	Length	Sterile	PK	Cat. No.
Pointed / angled: fine, smooth, curved gripping tip	130	+	100	4.670 759
Pointed: straight, inside, serrated tip	130	+	100	4.670 761
Wide tip: smooth and blunt tip	130	+	100	4.670 763

# SAMPLE BAGS SANI-STICK AND SANI-SPONGE, WITH CELLULOSE SPONGE







For taking surface samples.

- With writing area
- Rigid handle (Sani-Stick)
- Integrated secure closure system with 2 round wires (Sani-Sponge)
- Quick release system for the sponge
- Integrated secure closure system with 2 round wires
- Sterile
- Contaminant-free
- Waterproof and airtight
- Free of RNase, DNase and pyrogens

Nominal capacity ml	Dimensions (W x H) mm	Medium	PK	Cat. No.
1200	152 x 267*	Letheen broth	10	6.522 307
1200	152 x 267*	Dey-Engley neutralising broth	10	6.522 308
1200	152 x 267*	Buffered peptone water	10	6.522 309
1200	152 x 267*	Neutralising buffer	10	4.701 832
2100	191 x 292**	Buffered peptone water	100	6.522 404
2100	191 x 292**	Letheen broth	100	6.522 393
2100	191 x 292**	Neutralising buffer	100	6.522 405
2100	191 x 292**	Dey-Engley neutralising broth	100	6.522 406
* Sani-Sti	ck, **Sani-Spong	e		

### **MEMBRANE FILTERS**





LABSOLUTE® offers a wide selection of membrane filters for microfiltration. You can choose between several membrane materials, diameters and pore sizes. Usage of membrane filters is recommended both for filtration of air and fluid and is optimally suited in particular for retention of very small particles. Precisely defined micro pores and exceeding stability - this combination makes it a good choice for applications in the microbiological sector, as well as in the pharmaceutical, food and water analysis industry.

# CELLULOSE ACETATE MEMBRANE FILTERS, WHITE



Cellulose acetate membranes are characterized by an extraordinary high flow capacity and dimensional stability. The filters have good thermal resistance and can be used in various applications.

- Hydrophilic
- Low protein binding capacity
- Maximum operating temperature: 135 °C
- Non-sterile
- Autoclavable at 121 °C

#### PK Cat. No. size μm 0.22 50 142 100 7.699 921 25 7.699 922 0.22 0.22 100 7.699 925 100 7.699 926 47 50 0.45 0.45 0.45 25 7.699 927

# **NITROCELLULOSE MEMBRANE FILTERS**





The uniform pore structure of the LABSOLUTE® nitrocellulose membranes allow high throughput and diffusion rates and guarantee ultrapure and consistent results due to a very low extent of extractables.

- Hydrophilic
- High protein binding capacity
- Maximum operating temperature: 180 °C
   Autoclavable at 121 °C

# **NITROCELLULOSE** MEMBRANE FILTERS, WHITE



- Non-sterile

Ø	Pore size	PK	Cat. No.
mm	μm		
25	0.45	100	7.699 930
47	0.45	100	7.699 931
50	0.45	100	7.699 932
142	0.45	25	7.699 933
47	0.80	100	7.699 934
50	0.80	100	7.699 935
47	1.20	100	7.699 936
50	1.20	100	7.699 937
47	8.00	100	7.699 938
50	8.00	100	7.699 939

# **NITROCELLULOSE** MEMBRANE FILTERS, GRID PATTERN





Membranes featuring a grid pattern are ideally suited for determination of colony count, particle analysis and microscopy. Differently coloured filters guarantee a best possible contrast and easy colony counting.

- Sterile and non-sterile

Further variants available on request.

Ø	Pore size	Sterile	Membrane colour	PK Cat. No.
mm	μm			
50	0.45	Yes	Black, white grid	100 7.699 941
50	0.45	No	Black, white grid	100 7.699 942
50	0.45	Yes	White, black grid	100 7.699 946



# SOLVENT PUMP FOR HAND OPERATED



For contamination-free removal of organic solvents and flavouring agents. Can be completely closed off with two ball valves so that no dangerous vapours can escape after dispensing. Electrostatic charge can be dissipated through the accessory antistatic set (please order separately).

- Medium-contacting parts are made of stainless steel (1.4301) and PTFE  $\,$
- For containers up to 60 litres
- Suitable for containers with R 2" thread
- The solvent pump for tinfoil canisters has a connector thread for pull-out spouts

Description	Immersion depth	PK Cat. No.
	mm	
Hand pump	600	1 9.001 349
Hand pump for tinplate canisters	600	1 6.237 176

# SOLVENT PUMP FOR FOOT OPERATION



For filling off high-purity liquids such as solvents. Due to the barrel screw joint and the stopcock, the container and the pump can be hermetically sealed. Electrostatic charge can be dissipated through the accessory antistatic set (please order separately).

- Medium-contacting parts made of stainless steel (1.4301) and PTFE
- For barrels up to 220 litres, the immersion tube can be steplessly adjusted to the barrel depth
- Suitable for steel barrels with R 2" thread

Description	Immersion depth	Flow rate	PK Cat. No.
	mm	L / min.	
Foot pump with rigid angled tube	950	30	1 9.001 134
Foot pump with flexible tubing	950	30	1 6.236 800

# SPACE-SAVING JERRYCANS, HDPE, ELECTRICALLY CONDUCTIVE



Black. For use in explosion-protected areas. Electrostatic charge can be dissipated through the accessory antistatic set (please order separately).

- Antistatic
- Surface resistance < 10<sup>5</sup> Ohm
- With or without threaded connector 3/4"
- Space-saving due to its narrow width
- Electrically conductive stopcock StopCock PA (available as accessory)

Nominal capacity	Description	Width	P	K	Cat. No.
ml		mm			
5000	with threaded connector	65		1	4.665 332
5000	without threaded connector	65		1	4.665 330
10000	with threaded connector	125		1	4.665 333
10000	without threaded connector	125		1	4.665 331

### **TUBING CLAMPS STOP-IT, METAL**





Tubing clamps can regulate or stop the flow through of tubings that carry fluids or gases.

) fit I I I I I I I I I I I I I I I I I I I	PK	Cat. No.
m		
5 10	1	9.303 787
8 15	1	9.303 788
1 20	1	9.303 789
5 30	1	9.303 790

### **ANTI-STATIC SET**





When dispensing combustible/explosive liquids pump, both the dispensing and filling drum involved in the process must be sufficiently earthed, to prevent ignition or explosion through electrostatic discharges. The antistatic set includes three colour-coded connecting cables with clamps, supplied complete in a plastic case.

ĺ	Туре	PK	Cat. No.
	Antistatic set	1	9.001 346

# SINGLE CHANNEL MICROLITER PIPETTES TRANSFERPETTE® S, VARIABLE



Volume ranges from 0.1  $\mu l$  to 10000  $\mu l$ .

- Volume-change protection
- Easy Calibration technology: Calibration without tools
- Completely autoclavable at 121 °C
- Colour code on volume adjustment wheel, shaft and volume-change protection
- DE-M marking

**Scope of supply:** Transferpette® S type adjustable volume, with performance certificate, shelf/rack mount, labelling foil, silicone grease





Capacity	Accuracy	Precision	Tip	PK	Cat. No.
	max. vol.	max. vol.			
μΙ	(± R%)	(≤ CV%)	μl		
0.1 1	2	1.2	0.1 20	1	9.280 140
0.1 2.5	1.4	0.7	0.5 20	1	9.280 141
0.5 10	1.0	0.5	0.5 20	1	9.280 142
2 20	0.8	0.4	2 200	1	9.280 143
5 50	0.8	0.3	2 200	1	9.280 144
10 100	0.6	0.2	2 200	1	9.280 145
20 200	0.6	0.2	2 200	1	9.280 146
100 1000	0.6	0.2	50 1000	1	9.280 147
500 5000	0.6	0.2	500 5000	1	9.280 148
1000 10000	0.6	0.2	1000 10000	1	9.280 149

# PIPETTE TIPS, LOOSELY PACKED, IN A RESEALABLE BAG, NON-STERILE

All tips and filter tips are produced under supervised state-of-the-art Cleanroom conditions and automatically shrink-wrapped in reclosable bags and packaged in cardboard boxes. The batch number is printed on every bag.



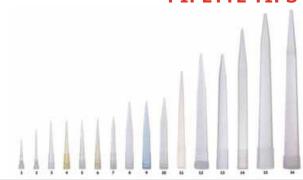






Colour	Capacity	Package contents	PK	Cat. No.
	μι	2   64000	2000	0.400.660
natural	0.1 - 20	2 bags of 1000	2000	9.409 669
natural	0.5 - 20	2 bags of 1000	2000	9.409 670
yellow	2 - 200	1 bag of 1000	1000	9.409 672
natural	5 - 300	1 bag of 1000	1000	9.409 673
blue	50 - 1000	2 bags of 500	1000	9.409 674
natural	500 - 5000	1 bag 200	200	9.409 223
natural	1000 - 10000	2 bags of 100	200	9.409 191

# PIPETTE TIPS IN BAGS, NON-STERILE





LABSOLUTE  $^{\circ}$  pipette tips are made of pure PP and comply with the requirements of EN ISO 8655.

Thanks to their universal fit and the high-quality material, the tips guarantee a firm and absolutely tight hold on diverse pipette models. And all this with much less attachment and ejection forces.

The fully automated production and packaging of the pipette tips under clean room conditions guarantee completely contamination-free working conditions with products which are certified free of DNase, RNase, human DNA, pyrogens and ATP - to ensure you reproducible and consistent results.

Volume range	Figure	Colour	Overall	PK	Cat. No.
			length		
μl			mm		
0,1 - 10	1	Transparent	31	1000	7.695 840
0,1 - 10 XL/20	2	Transparent	44	1000	7.695 841
2 - 200 (bevelled tip)	3	Transparent	51	1000	7.695 842
2 - 200 (bevelled tip)	4	Yellow	51	1000	7.695 843
2 - 200	5	Transparent	53	1000	7.695 844
2 - 200	6	Yellow	53	1000	7.695 845
20 - 300	7	Transparent	55	1000	7.695 846
100 - 1000	8	Transparent	71	500	7.695 847
100 - 1000	9	Blue	71	500	7.695 848
100 - 1250	10	Transparent	76	500	7.695 849
100 - 1250 XL	11	Transparent	98	500	7.695 854
500 - 5000, Eppendorf Fit	12	Transparent	120	250	7.695 850
500 - 5000, Gilson Fit	13	Transparent	120	250	7.695 933
500 - 5000, Thermo Fit	14	Transparent	147	250	7.695 855
500 - 5000, Thermo Fit	14	Transparent	147	100	7.695 856
1000 - 10000, Eppendorf/Gilson Fit	15	Transparent	160	200	7.695 934
1000 - 10000, Eppendorf Fit	16	Transparent	165	100	7.695 851
2000 - 10000, Thermo Fit	17	Transparent	150	100	7.695 857

# SARTURIUS

# ELECTRONIC MICROLITRE PIPETTES PICUS® 2 SERIES



The Picus® 2 micropipettes are fully electronic, ensuring consistent, reliable and reproducible results. The Picus® 2 is equipped with a wide range of pipetting modes and adjustable programmes.

# Capacity Increments PK Cat. No. µI µI 1 4.692 485 5.0 ... 1 4.692 485 1.0 ... 1 4.692 486 1.0 ... 3.00 1 4.692 487 5.0 ... 1.00 1 4.692 488 100 ... 5.00 1 4.692 489 500 ... 1.000 1 4.692 489

 $\mbox{Picus}^{\mbox{\tiny 0}}$  2 multichannel pipettes are also available with a 30% discount in the Th.Geyer webshop.

### FILTER TIPS SAFETYSPACE™



SafetySpace™ pre-sterilised filter tips create more space between the sample and the filter than conventional filter tips. This allows any type of liquid to be pipetted using any pipetting technique, without the risk of absorbing the valuable sample with the filter. This ensures 100% sample recovery and therefore greater accuracy.

Capacity	Length	PK	Cat. No.
ul	mm		
μΙ	IIIIII		
0.1 - 10	31.5	960	6.230 410
0.5 - 20	51	960	6.227 887
2 - 120	51	960	6.240 886
5 - 200	52.5	960	6.233 695
5 - 300	52.5	960	6.230 069
50 - 1000	78	960	6.232 435
50 - 1200	90	960	6.228 053
100 - 5000	150	50	6.314 146

### PIPETE TIPS OPTIFIT



Optifit tips are designed for best possible fitting and sealing to secure the highest possible accuracy and precision.

Capacity	Length	Description	PK	Cat. No.
ul	mm			
μl	mm			
0.1 - 10	31.5	non-sterile	960	6.241 795
0.1 - 10	31.5	pre-sterilised	960	6.238 320
0.1 - 10	31.5	non-sterile, refill	960	7.970 516
0.1 - 10	31.5	pre-sterilised, refill	1920	7.970 541
0.5 - 200	51.0	pre-sterilised, refill	1440	6.280 882
0.5 - 200	51.0	pre-sterilised	960	6.238 319
0.5 - 200	51.0	non-sterile, refill	960	6.235 565
5 - 350	54.0	non-sterile	960	6.225 217
5 - 350	54.0	non-sterile	960	6.234 567
5 - 350	54.0	pre-sterilised	960	6.239 400
5 - 350	54.0	non-sterile, refill	1440	4.660 995
10 - 1000	71.5	pre-sterilised, refill	960	6.226 809
10 - 1000	71.5	non-sterile	960	6.226 833
10 - 1000	71.5	non-sterile, refill	960	6.234 568
10 - 1000	71.5	pre-sterilised	960	6.259 767
50 - 1200	71.5	pre-sterilised, refill	960	6.204 651
50 - 1200	71.5	non-sterile	960	6.224 347
50 - 1200	71.5	non-sterile, refill	960	6.251 705
50 - 1200	71.5	pre-sterilised	960	7.658 803
100 - 5000	150.0	pre-sterilised, refill	50	6.206 247
100 - 5000	150.0	non-sterile	50	6.238 066
1000 - 10000	155.0	pre-sterilised	35	6.313 614

# OPTIFIT TIPS IN FLEXIBULK PACK



The tips in FlexiBulk packs are of the same high quality as the other Sartorius Optifit Tips available in tip racks and refill packages.

Capacity	Length	Description	PK	Cat. No.
μΙ	mm			
0.1 - 10	31.5	non-sterile	1000	6.225 481
0.5 - 200	51	non-sterile	960	6.902 461
0.5 - 200	51	*	960	7.661 472
5 - 350	54	*	960	6.288 468
10 - 1000	71.5	*	480	6.269 234
50 - 1200	71.5	*	480	6.272 394
100 - 5000	150.0	non-sterile	100	7.607 378
100 - 5000	150.0	non-sterile	1000	6.203 851
1000 - 10000	161.0	non-sterile	250	6.251 309
* Free of RNas	e, DNase an	d endotoxins		

# **COOLING AND HEATING TECHNOLOGY**

### **DIGITAL WATER BATHS**



- Including lid
- Color TFT display
- Color TFT display with control panel
- Calibration offset feature
- 5 user programmable pre-sets (temperature and duration)
- 5 languages (English, German, French, Spanish and Chinese)
- Integrated independent timer
- Rear-mounted drain (10, 20 and 28 litres)

Scope of supply: Digital water bath, incl. lid



#### **Specifications**

Temperature range: Ambient +5 °C ... 100 °C

Temperature uniformity:  $\pm 0.2$  °C Temperature stability:  $\pm 0.1$  °C Power supply:  $\pm 0.1$  °C 240 V, 50 Hz

Туре	Capacity	PK PK	Cat. No.
71.	of the bath		
	litres		
WREGRATRE	2	1	6.274 985
WBE02A12E	2	1	
WBE05A12E	5	1	6.274 986
WBE10A12E	10	1	6.274 987
WBE20A12E	20	1	6.274 988
WBE28A12E	28	1	6.274 989

# HEATING BATH CIRCULATOR ECO ET GOLD, WITH POLYCARBONATE BATH TANK



Thermostatic bath circulator with the latest microprocessor technology. With flow rate switch on the control head for individual setting of the internal and external circulation, even during operation.

- User-friendly menu navigation in plain language
- Safety class III for operation with flammable and non-flammable liquids
- Pump with 6 adjustable performance levels
- Cooling coil as standard
- USB interface as standard
- Coloured TFT display for simultaneous indication of actual and set values and graphic illustration of the temperature profile
- Stainless steel pump connectors (M16x1 thread)

Туре	Capacity	PK	Cat. No.
	litres		
ET 6 G	5.0 6.0	1	6.319 701
ET 12 G	9.5 12.0	1	6.242 985
ET 15 G	13.5 15.0	1	6.259 775
ET 20 G	15.0 20.0	1	6.522 851

# REFRIGERATED CIRCULATORS CORIO™ CD SERIES



- Choose your color!

- Environmentally friendly

- Natural refrigerant

Refrigerated circulators are suitable for internal and external standard temperature applications as well as routine work in laboratories and industry.

- Bright, white, easy-to-read display - Easy pump switching between internal
- Easy pump switching between interna and external circulation
- External pump connections (M16x1)
- USB connection
- Space-saving cooling coil design yields more usable space in the bath tank
- Stainless steel bath tank including bath lid and drain tap
- Removable ventilation grid
- Refrigeration unit without lateral ventilation openings
- 2 hose olives each suitable for hose inner diameter 8 and 12 mm included
- Class III (FL) acc. to DIN 12876-1



Julaba

Туре	Capacity	PK	Cat. No.
	litres		
CD-310F	3 4	1	4.685 626
CD-450F	3 4	1	4.685 628
CD-800F	5 7.5	1	4.692 234
CD-1200F	5 7.5	1	4.692 235
CD-310F, green foiled	3 4	1	4.710 157
CD-450F, green foiled	3 4	1	4.710 158
CD-800F, green foiled	5 7.5	1	4.710 159
CD-1200F, green foiled	5 7.5	1	4.710 160

# **OVERALLS, PP**





The LABSOLUTE® latex-free disposable overalls with a hood, an elastic cuff and a front zipper are made of white PP fleece. They provide good protection, barrier properties and durability due to the taped seams.

Size	PK	Cat. No.
L	10	7.695 315
XL	10	7.695 316
XXL	10	7.695 317

# **DISPOSABLE GLOVES, NITRILE** SENSITIVE, POWDER-FREE





The powder-free, lavender blue LABSOLUTE® disposable gloves Sensitive made of nitrile are flat with a rolled cuff and offer excellent elasticity and wearing comfort. A special after-treatment makes these LABSOLUTE® disposable gloves skin friendly and easy to put on. The gloves have textured finger tips.

#### The LABSOLUTE® nitrile gloves with an AQL value of 1.5 comply with the following standards and directives

- EN 420, EN ISO 374-1, -2, -4, -5 and EN 16523-1
- (EU) 2016/425 (PPE in accordance with CE category III for complex risks)
- 1935/2004 (can be used in direct contact with food)
- ASTM 1671 / ISO 16604 (viral penetration)

### **Further properties**

- Approved for the use within Hazard Analysis and Critical Control Points (HACCP) concepts
- Resistance against ethidium bromide (1%) for more than 480 min (level 6)
- Delivered in handy dispenser boxes of 200 (XS, S, M, L) or 180 pieces (XL)
- Free from phthalates, softeners and allergenic latex proteins
- Storage life: 3 years
- Length: approx. 240 mm
- Thickness (double): finger min. 0.14 mm, palm min. 0.12 mm, cuff min. 0.10 mm
- Can be worn on the left or right hand

Size	PK	Cat. No.
XS	200	7.696 904
S	200	7.696 900
M	200	7.696 901
L	200	7.696 902
XL	180	7.696 903

# **BOUFFANT CAPS, PP**





The LABSOLUTE® bouffant caps with a diameter of 52 cm and an elastic strap are made of soft and breathable PP fleece with a grammage of 10 g/m<sup>2</sup> only.

Colour	PK	Cat. No.
Green	100	7.695 320
White	100	7.695 321
Blue	100	7.695 322

### SKIN CARE CREAM, **SKIN CARE 1**





The LABSOLUTE® Skin Care 1 is a high-quality, easily absorbable, gently moisturising skincare cream containing natural oils and beeswax. The emulsion is silicone-free and is therefore also suitable for use within Hazard Analysis and Critical Control Points (HACCP) concepts. The product encourages skin regeneration and can also be used on the face.

For best effects, use regularly after washing your hands, on dry skin, or also while working in the laboratory or office. The cream is suitable for all skin

Description	Capacity	PK	Cat. No.
	ml		
Skin Care 1, unperfumed	100	1	7.695 201

# DISPOSABLE GLOVES FORMAT, NITRILE

FN ISO 374-1 FN ISO 374-5 FN 420 Type C











Non-sterile, powder-free, hypoallergenic, with beaded cuff and microroughened surface.

EN 455 T 1-3, CE. Type examination test acc. EN 374.

### Cat. III Low Chemical resistance.

Supplied in dispenser box containing 100 gloves.

According to EN ISO 374-1:2016/Type C, EN ISO 374-5:2016, EN 420

Size	PK Cat. No.
XS (5 to 6)	100 9.005 344
S (6 to 7)	100 9.005 345
M (7 to 8)	100 9.005 346
L (8 to 9)	100 9.005 347
XL (9 to 10)	100 9.005 348



### **CONCENTRATED VOLUMETRIC SOLUTIONS IN AMPOULES - HIGHEST PRECISION** FOR RELIABLE ANALYSES

The concentrated volumetric solutions from CHEMSOLUTE® in PE or glass ampoules are extremely space-saving in storage. The volumetric solutions are prepared by dilution with deionised water to a final volume of exactly 1000 ml. The funnel supplied makes handling very easy.

Description		GHS	Packaging	Cat. No
Ammonium thiocyanate solution	c(NH <sub>4</sub> SCN) 0.1 mol/l (0.1 N)		PE-Ampoule	2619.0001
Bromide-bromate solution	c(Br <sub>2</sub> ) 0.05 mol/l (0.1 N)	<b>(</b> 1)	PE-Ampoule	1639.0001
EDTA III III III III	NEW c(Na <sub>2</sub> -EDTA $\cdot$ 2 H <sub>2</sub> O) 0.01 mol/l (0.02 N)	<b>!</b> > 2)	PE-Ampoule	5491.0001
EDTA disodium salt solution	c(Na <sub>2</sub> -EDTA $\cdot$ 2 H <sub>2</sub> O) 0.1 mol/l (0.2 N)	3)	PE-Ampoule	2291.0001
	c(CH₃COOH) 0.1 mol/l (0.1 N)	<b>!</b> 2)	PE-Ampoule	2264.0001
Acetic acid	c(CH₃COOH) 1 mol/l (1 N)	3)	PE-Ampoule	2243.0001
lodide-iodate solution	c(I <sub>2</sub> ) 1/128 mol/l (1/64 N)	(1) (2) 4)	Glass-Ampoule	1691.0001
lodine solution	c(I <sub>2</sub> ) 0.05 mol/l (0.1 N)	\$ 5)	Glass-Ampoule	1823.000
	c(KOH) 0.1 mol/l (0.1 N)	6)	PE-Ampoule	1667.000
Potassium hydroxide solution	c(KOH) 1 mol/l (1 N)	<b>₹ 1</b> 7)	PE-Ampoule	1671.000
Potassium bromate solution	c(KBrO₃) 1/60 mol/l (0.1 N)	(!) 🗞 s)	Glass-Ampoule	1606.000
Potassium dichromate solution	c(K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> ) 1/60 mol/l (0.1 N)	(1) (1) (2) (2) 9)	PE-Ampoule	1647.000
Potassium iodate solution	c(KIO <sub>3</sub> ) 1/60 mol/l (0.1 N)	10)	Glass-Ampoule	1686.000
2	NEW c(KMnO <sub>4</sub> ) 0.002 mol/l (0.01 N)	11)	Glass-Ampoule	6059.000
Potassium permanganate solution	c(KMnO <sub>4</sub> ) 0.02 mol/l (0.1 N)	12)	Glass-Ampoule	1659.000
	c(Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) 0.01 mol/l (0.01 N)		PE-Ampoule	1371.000
Sodium thiosulphate solution	c(Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) 0.1 mol/l (0.1 N)		PE-Ampoule	1387.000
	c(NaOH) 0.01 mol/l (0.01 N)	<b>(1)</b> 2)	PE-Ampoule	1325.000
	c(NaOH) 0.1 mol/l (0.1 N)	6)	PE-Ampoule	1332.000
Sodium hydroxide solution	c(NaOH) 0.25 mol/l (0.25 N) NEU	6)	PE-Ampoule	6334.000
	c(NaOH) 0.5 mol/l (0.5 N)	6)	PE-Ampoule	1336.000
	c(NaOH) 1 mol/l (1 N)	6)	PE-Ampoule	1341.000
	NEW c(C <sub>2</sub> H <sub>2</sub> O <sub>4</sub> ) 0.005 mol/l (0.01 N)	<b>!</b> > 2)	PE-Ampoule	1249.000
Oxalic acid	$c(C_2H_2O_4)$ 0.05 mol/l (0.1 N)	13)	PE-Ampoule	1250.000
Nitric acid	c(HNO <sub>3</sub> ) 1 mol/l (1 N)	14)	PE-Ampoule	861.000
	c(HCl) 0.1 mol/l (0.1 N)	15)	PE-Ampoule	814.000
	c(HCl) 0.2 mol/l (0.2 N)	(1)	PE-Ampoule	832.000
Hydrochloric acid	c(HCl) 0.5 mol/l (0.5 N)	16)	PE-Ampoule	835.000
	c(HCl) 1 mol/l (1 N)	17)	PE-Ampoule	840.000
	NEW c(H <sub>2</sub> SO <sub>4</sub> ) 0.005 mol/l (0.01 N)		PE-Ampoule	894.000
Sulphuric acid	c(H <sub>2</sub> SO <sub>4</sub> ) 0.05 mol/l (0.1 N)	<b>!</b> > 2)	PE-Ampoule	875.000
	c(H <sub>2</sub> SO <sub>4</sub> ) 0.5 mol/l (1 N)	3)	PE-Ampoule	895.000
Silver nitrate solution	c(AgNO <sub>3</sub> ) 0.1 mol/l (0.1 N)	181	Glass-Ampoule	848.000

<sup>&</sup>lt;sup>1)</sup> **Danger** H350 <sup>6)</sup> **Danger** H290 H314 <sup>10)</sup> **Danger** H318

15) Warning H290

<sup>&</sup>lt;sup>2)</sup> **Warning** H315 H319 <sup>7)</sup> **Danger** H290 H302 H314

<sup>&</sup>lt;sup>3)</sup> **Danger** H314 <sup>8)</sup> **Danger** H302 H350 <sup>12)</sup> **Warning** H410

<sup>&</sup>lt;sup>4)</sup> Warning H315 H319 H373 <sup>5)</sup> Danger H372 <sup>9)</sup> Danger H332 H314 H334 H317 H340 H350 H360FD H335 H411

<sup>&</sup>lt;sup>16)</sup> **Warning** H290 H315 H319 H335 <sup>17)</sup> **Danger** H290 H314 H335

<sup>13)</sup> **Danger** H315 H318 <sup>18)</sup> **Danger** H314 H410

<sup>&</sup>lt;sup>14)</sup> **Danger** H290 H331 H314 EUH071



### **GC-MS SOLVENTS**

Technological advances in GC-MS, GC-MS/MS and 2D-GC-MS have opened new analytical horizons in terms of result selectivity. They have also led to a reduction in detection limits and the introduction of faster methods for sample preparation. CARLO ERBA Reagents, expert in the production of solvents for chromatography, has been able to develop its range of solvents for GC to satisfy the ever-increasing requirements in terms of equipment and detection methods. Discover the range of solvents dedicated to the GC-MS application and characterized by:

- Very high purity
- Extremely low non-volatile residue content
- Functionality tested in GC-MS

Description	GHS	Packaging	PK	Cat. No.
Acetone	<b>♠ !</b> ₁)	Glass bottle	1 l	400952
Chloroform stabilized with ethanol	(1) (2) (2)	Glass bottle	1 l	438732
Dichloromethane stabilized with amylene	<b>♠ ♦ ♦</b> ₃	Glass bottle	1 l	463342
Dichloromethane stabilized with ethanol	<b>♠ ♦ ♦</b> ₃	Glass bottle	1 l	463332
Ethyle acetate	(1) A)	Glass bottle	1 l	448342
n-Hexane 99 %	<b>⋄ ♦ ♦</b> 5)	Glass bottle	1 l	447212
Methanol	(1) 6)	Glass bottle	1 l	414952
n-Pentane 99%	(1) (1) (2) (2) (3) (4) (5) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	Glass bottle	1 l	468172
n-Pentane	(1) (1) (2) (2) (3) (4) (5) (4) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5	Glass bottle	1 l	468182

<sup>1)</sup> **Danger** H225 H319 H336 EUH066

### REFERENCE STANDARDS FOR THE ANALYSIS OF RESIDUAL SOLVENTS ACCORDING TO PH. EUR. CHAP. 2.4.24

All standards are supplied with a certificate of analysis, including full traceability:

- Batch number and expiry date
- CAS number of each component
- Molecular formula of each component
- Batch number of each bulk material used
- Concentration of each component
- · Extended measurement uncertainties

Description	GHS	Packaging	PK	Cat. No.
Mixture (5 components)		Glass ampoule	1.5 ml	507688
Mixture A (14 components)		Glass ampoule	1.5 ml	507689
Mixture B (11 components)		Glass ampoule	1 ml	507690
Mixture C (6 components)	1)	Glass ampoule	1 ml	507691

<sup>1)</sup> Danger H360D

<sup>&</sup>lt;sup>4)</sup> **Danger** H225 H319 H336 EUH066

<sup>7)</sup> Danger H225 H336 H304 H411 EUH066

<sup>&</sup>lt;sup>2)</sup> **Danger** H302 H331 H315 H319 H351 H361d H372 EUH301

<sup>5)</sup> **Danger** H225 H315 H361f H336 H373 H304 H411

<sup>3)</sup> **Danger** H315 H319 H351 H335 H336 H372

<sup>6)</sup> **Warning** H225 H301 H311 H331 H370





### **PEPTIDE SYNTHESIS**

Chemical peptide synthesis is one of the most delicate processes in chemical synthesis. The solvents must be of the highest purity and with the lowest water content in order to limit side reactions. CARLO ERBA Reagents supports you in every step of your peptide synthesis with reagents of the highest quality.



Description	Water content (KF)	GHS	Packaging	PK	Cat. No.
			Bottle with Septum	200 ml	P0063510
Acetonitrile (min. 99.9 %)	max. 100 ppm	(1) 1)	Glass bottle	1 l	P0063516
			Glass Dollle	2.5 l	P0063521
			Glass bottle	1 l	P0343516
N,N-Dimethylformamide (min. 99.9 %)	max. 300 ppm	<b>(1) (2) (2)</b>	Glass buttle	2.5 l	P0343521
			Plastic tank	5 l	P0343522
N-Methyl-2-pyrrolidone (min. 99.7 %)	max. 400 ppm	$\wedge \wedge$	Glass bottle	1 l	P0873516
N-Methyt-2-pyrrotidone (min. 75.7-76)	шах. 400 ррш	3)	Glass bottle	2.5 l	P0873521
				500 ml	P0663518
Piperidine (min. 99 %)	max. 3000 ppm	<b>⋄</b> ♦ ♦ 4)	Glass bottle	1 l	P0663516
				2.5 l	P0663521
Pyridine (min. 99.5 %)	max. 100 ppm		Glass bottle	1 l	P0673516
Pyriume (mm. 55.3 %)	ridine (min. 99.5 %) max. 100 ppm (!) (\$\frac{1}{4}\) Glass bottle	Glass Dollie	2.5 l	P0673521	
		♠ ♠ 6	Class bottle	100 ml	P0082103
Trifluoro acetic acid (min. 99.9 %)	max. 200 ppm		Glass bottle	500 ml	P0082118
			Glass bottle, PVC coated	2.5 l	P0082147

<sup>&</sup>lt;sup>1)</sup> **Danger** H225 H302 H312 H332 H319 <sup>4)</sup> **Danger** H225 H311 H331 H315



# **EVERYTHING FROM ONE SOURCE MORE THAN 1.100 MANUFACTURERS AND BRANDS**



Here you will find a selection of our manufacturers and brands www.thgeyer.com



<sup>&</sup>lt;sup>2)</sup> **Danger** H226 H312 H332 H319 H360D <sup>5)</sup> **Danger** H225 H302 H312 H332

<sup>&</sup>lt;sup>3)</sup> **Danger** H315 H319 H360D H335 <sup>6)</sup> **Warning** H332 H314 H412



### **DECONTAMINATION AND CLEANING**

### DNA/RNA-EXITUSPLUS™

Reliably and completely removes DNA and RNA contamination from surfaces as PCR workstations, devices, electrophoresis chambers, pipettes, etc.



Description	PK	Cat. No.
	100 ml	A7089,0100
DAMAGNA 5 in District	500 ml	A7089,0500
DNA/RNA-ExitusPlus™	1 l	A7089,1000RF
	2.5 l	A7089,2500RF
	100 ml	A7409,0100
	500 ml	A7409,0500
DNA/RNA-ExitusPlus™ IF	1 l	A7409,1000RF
	2.5	A7409,2500RF
	5 l	A7409,5000

#### AUTOCLAVE-EXITUSPLUS™

Autoclave-ExitusPlus™ reliably removes DNA and RNA contamination from culture media and buffers at elevated temperatures (e.g. during autoclaving).

Description	РК	Cat. No.
Autoclave-ExitusPlus™	1 l	A7600,1000

### INCUWATER-CLEAN™ AND AQUABATOR-CLEAN™

The Incuwater-Clean™ is non-toxic and serves as an extremely effective disinfectant for water baths/tubs in CO₂ incubators. Aquabator-Clean™ is ideal for preventing microbial growth in standard water baths.

Description	GHS	PK	Cat. No.
Incuwater-Clean™		100 ml	A5219,0100
Aquabator-Clean™ (100X)	<b>(1)</b>	250 ml	A9390,0250

<sup>1)</sup> Warning H319

### INCUBATOR-CLEAN™

Prevent the contamination and growth of fungi (and spores), bacteria, viruses (including HIV and hepatitis B) and mycoplasma in your incubators and safety cabinets with Incubator-Clean™.

Description	PK	Cat. No.
la substant Class TM	500 ml	A5230,0500
Incubator-Clean™	5 L	A5230,5000RF



### **WATER**

Description	PK	Cat. No.
	5 l	211074.1214
Water technical grade	10 l	211074.0715
	25 l	211074.0716
	1 l	131074.1211
	2.5 l	131074.1212
Water for each via ACC	5 l	131074.1214
Water for analysis, ACS	10 l	131074.1315
	25 l	131074.0716
	200 l	131074.0719



### CHEMICALS FOR CLEANING

Description	GHS	PK	Cat. No.
Sodium Hypochlorite solution 5 % (w/v) technical grade	(4) (1) (1)	1 l	212297.1211
Journal Hypochionic Solution 5 % (W/V) reclinical grade	1)	5 l	212297.1214
		1 l	213322.1211
Sodium hypochlorite solution 13 %	1)	5 l	213322.1214
		10 l	213322.0715
Ethanol 70 % for analysis	(1) 2)	5 l	A2192,5000
Ethanol 70 % denatured with IPA, MEK and Bitrex pure	(1) 2)	5 l	147196.1214
		1 l	141086.1211
Ethanol absolutely pure	<b>^</b>	2.5 l	141086.1212
Ethanot absolutely pure	2)	5 l	141086.1214
		25 l	141086.0716
Ethanol 96 % denatured with IPA, MEK and Bitrex pure	<b>(1)</b> 2)	2.5 l	147195.1212
Ethanot 30 % denatured with IFA, MEK and Bittex pure	2)	5 l	147195.1214
Sodium hydroxide solution 50% w/w	3)	1000 Լ	192404.9774
Sodium Hydroxide solution 50% w/v pure		5 l	141571.1214
Socialii nyaloxide Solation 50% w/v pule	4)	10 l	141571.0715
Potassium Hydroxide 90% flakes technical grade	(1) <sub>5)</sub>	5 kg	211514.1214
Potassium Hydroxide 85% pellets for analysis, ACS	(1) <sub>6)</sub>	1 kg	131515.1211
2-Propanol 70% v/v pure	<b>(1)</b> 70	1 l	145618.1211
2-Propariot 70% v/v pure	7)	5 l	145618.1214
		1 l	131090.1211
		1 l	131090.1611
3.0 1/9 1/50.01 5 1/5 1/5 1/5 1/5		2.5 l	131090.1212
2-Propanol (Reag. USP, Ph. Eur.) for analysis, ACS, ISO		2.5 l	131090.1612
		5 l	131090.1214
		25 l	131090.0716

<sup>&</sup>lt;sup>2)</sup> **Danger** H2225 H319 <sup>6)</sup> **Danger** H290 H302H314

<sup>4)</sup> Danger H314



### **MICROBIOLOGICAL WATER ANALYSIS**

BIOSOLUTE® microbiological culture media are available as ready-to-use plates in 55 mm sizes for your water analysis needs in all areas, for drinking water, waste water as well as for pure, process or industrial water or e.g. water from environmental samples.

### COUNTING THE TOTAL BACTERIAL COUNT

Description	РК	Cat. No.
Nutrient Agar DEV, membrane filtration plates 55 mm	30 plates	9398.0030
Plate Count Agar (PCA), membrane filtration plates 55 mm	30 plates	9256.0030
R2A Agar, membrane filtration plates 55 mm	30 plates	9161.0030

### **DETECTION AND COUNTING OF CLOSTRIDIA**

Description	РК	Cat. No.
m-CP Agar, membrane filtration plates 55 mm	30 plates	9517.0030
TSC Agar, membrane filtration plates 55 mm	30 plates	9324.0030

### DETECTION AND COUNTING OF COLIFORMS/ENTEROBACTERIA

Description	PK	Cat. No.
Chromogenic Coliform Agar (CCA) membrane filtration plates 55 mm	30 plates	9956.0030
Endo LES Agar. membrane filtation plates 55 mm.	30 plates	9356.0030
MacConkey Agar, membrane filtration plates 55 mm	30 plates	9460.0030
Tergitol® 7-Lactose-TTC Agar, membrane filtration plates 55 mm	30 plates	9293.0030

### **DETECTION AND COUNTING OF ENTEROCOCCI**

Description	РК	Cat. No.
Slanetz and Bartley Agar membrane filtration plates	1	9134.0030

### **DETECTION AND COUNTING OF PSEUDOMONAS**

Description	PK	Cat. No.
Cetrimide Agar, membrane filtration plates 55 mm	30 plates	9254.0030
Chromogenic Pseudomonas Agar. membrane filtration plates 55 mm	30 plates	9965.0030
Pseudomonas CN Cetrimide Agar, membrane filtration plates 55 mm	30 plates	9252.0030

### DETECTION, ISOLATION AND COUNTING OF LEGIONELLA

Description	PK	Cat. No.
Legionella selective BCYE agar, prepared plates 90 mm	20 plates	9664.0020
Legionella selective BCYE agar, membrane filtration plates 55 mm	30 plates	9098.0030
Legionella Selective BCYE Agar with Antibiotics, prepared plates 90 mm	20 plates	9962.0020
Legionella Selective BCYE Agar with Antibiotics, membrane filtration plates 55 mm	30 plates	9092.0030
Legionella BCYE Agar without Cysteine, prepared plates 90 mm	20 plates	9662.0020
Legionella Selective (GVPC) Agar, prepared plates 90 mm	20 plates	9660.0020
Legionella selective GVPC agar, membrane filtration plates 55 mm	30 plates	9096.0030
Legionella Acid Buffer, ready-to-use solution	1 l	9994.1000



### **EFFICIENT MEMBRANE FILTRATION**

### MICROBIOLOGICAL MANIFOLD

Pall's Microbiological Manifold (Laboratory Manifold) offers the ability to optimise testing. The modular design allows tests to be optimised without compromising on cleanliness without compromising cleanliness.

Description	PK	Cat. No.
Laboratory Manifold, 3-Place, with Manifold Valves, End Cap, Hose Barb Cap	1	6237271
Laboratory manifold Sentino™ funnel adapter	3	7679808
Laboratory manifold MicroFunnel™ adapter	3	7679807



### SENTINO™ FILTER FUNNEL FROM PALL

Easy-to-use disposable funnels for microbiological monitoring of aqueous solutions.

Description	PK	Cat. No.
Sentino filter funnel 100ml 100pk	100	7679799
Sentino filter funnel 250ml 80pk	80	7679800
MicroCheck II beverage monitor, 100 ml	50	7679753



### WHATMAN EBUTLER MEMBRANE DISPENSER

The Whatman eButler membrane filter dispenser quickly dispenses a sterile membrane disc, either hands-free or with push-button operation. The eButler for microbiological quality control testing enables a more efficient workflow.

Description	PK	Cat. No
eButler Membrane Butler Dispenser	1	10477103



### MIXED CELLULOSE ESTER MEMBRANES, STERILE

Whatman cellulose ester membranes are made from cellulose acetate and cellulose nitrate and have a smoother and more uniform surface than pure nitrocellulose filters. Suitable for use with the eButler membrane Butler.

Description	PK	Cat. No.
Membrane filter ME 25/21 STL, 47 mm white, sterile	400	10407312
Membrane filter ME 25/21 STL, 47 mm green, sterile	400	10407370
Membrane filter ME 25/21 STL, 47 mm black, sterile	400	10407332
Membrane filter ME 25/21 STL, 50 mm white, sterile	400	10407314
Membrane filter ME 25/21 STL, 50 mm black, sterile	400	10407334
Membrane filter ME 25/21 STL, 50 mm green, sterile	400	10407372
Forceps, Stainless Steel with Multi-Colored Grips (3/pk)	3	7679744





### MORE ENVIRONMENTALLY FRIENDLY SOLVENTS FROM MERCK

### Making green chemistry usable

Merck is focusing on more environmentally friendly alternative products that are in line with one or more of the '12 Principles of Green Chemistry'. For example, the focus is on solvents that are obtained from renewable raw materials or generate less toxic by-products during production.

By using these solvents, you increase safety in use and reduce the environmental impact.

- Environmentally friendly production process
- Manufactured from renewable sources
- No toxic by-products
- Reduction of the CO<sub>2</sub> footprint









Description	GHS	Packaging	PK	Cat. No.
			1 l	904082-1L
Acetone BioRenewable, ACS reagent, ≥99.5%	(!) 1)	Glass bottle	2.5 l	904082-2.5L
			4 l	904082-4L
			0.5 l	909955-500ML
2-Propanol BioRenewable, ReagentPlus®, >99.5%	(!) 1)	Glass bottle	1 l	909955-1L
			4 l	909955-4L
			1 l	807796-1L
Cyrene™ (Altenative to NMP / DMF)	<b>!</b> > 2)	Glass bottle	2.5 l	807796-2.5L
			4 l	807796-4L
Ethanol 96% EMSURE® Reag. Ph. Eur.	(1) 3)	Glass bottle	2.5 l	1590102500
		Cl. 11	1 l	1009831000
Ethanol absolut p. a. EMSURE® ACS, ISO,	(1) (1) <sub>3)</sub>	Glass bottle -	2.5 l	1009832500
Reag. Ph. Eur.	HDPE Bottle		2.5 l	1009832511
Ethanol gradient grade for			1 l	1117271000
liquid chromatography LiChrosolv®	3)	Glass bottle	2.5 l	1117272500

<sup>1)</sup> **Danger** H225 H319 H336

<sup>2)</sup> Warning H319

3) **Danger** H225 H319



# CHEMICALS FOR YOUR LABORATORY TOP QUALITY FROM CHEMSOLUTE®

First-class laboratory chemicals, reagents and solutions. Order conveniently and securely online in our laboratory supplies & chemicals store.

www.thgeyer.com



-≡(wtw)=

a xylem brand

# **ph meter sevendirect™ SD20**



- Large 7" touch screen with intuitive user interface
- Electrode arm EasyPlace™ places the sensor precisely
- Intelligent Sensor Management (ISM®) ensures the correct use of the connected sensor
- Calibration with up to 5 calibration points
- GLP compliant

**Scope of supply:** pH meter, electrode arm EasyPlace™, rotective cover, power supply, get-started-guide

**SD20 kit:** pH electrode InLab® Expert Pro-ISM with robust PEEK shaft and integrated temperature sensor.

Scope of delivery: like pH meter SevenDirect™ SD20 + pH electrode InLab® Expert Pro-ISM, buffer pH 4.01, 7.00 and 9.21 or 10.01

**SD20 Stirrer kit:** EasyMix's magnetic stirrer - homogenises the sample and thus ensures reliable measurement results **Scope of delivery:** like pH meter SevenDirect™ SD20-Kit + magnetic stirrer EasyMix™

### **Specifications**

pH range: -2.000 ... 20.000

Accuracy: ±0.002

mV range: -2000.0 ... 2000.0 mV

Temperature range: -30 ... 130 °C

IP code: IP54

Туре	PK	Cat. No.
SD20	1	4.684 932
SD20-Kit	1	4.684 936
SD20 Stirrer-Kit	1	4.684 937

# pH INDICATOR STRIPS





The CHEMSOLUTE® pH indicator strips enable fast and accurate pH value determination. The range offers suitable products for a wide variety of pH value intervals.

- Non-bleeding
- No contamination of the medium
- 100 strips per pack

Range	pH steps		PK	Cat. No.
pH				
0 - 14	1.0		100	2714.0001
0 - 14 *	1.0		100	2717.0001
0 - 6.0	0.5		100	2730.0001
2.0 - 9.0	0.5		100	2740.0001
4.0 - 7.0	**		100	2760.0001
4.5 - 10.0	0.5		100	2770.0001
7.0 - 14.0	0.5		100	2790.0001
* in flip-top vi	al			
** 4.0 - 4.4 -	4.7 - 5.0 - 5.3	- 5.5 - 5.8 - 6.1 - 6.3 - 7.0		

# MULTIPARAMETER METERS MULTILINE® 3510 IDS

Professional digital multiparameter meters for mobile measurement.

Sequential multi-parameter measurement. All WTW IDS pH, ORP, dissolved oxygen sensors, conductivity cells and turbidity sensors can be connected to the universal channel with a cable or a wireless module. Data transfer to PC with MultiLab® Importer. It has a Mini USB-B interface and a black/white display.

**Multi 3510 IDS:** Single meter in a carrying case with buffer 4, 7, KCl 3 mol/l, conductivity standard, batteries, USB cable

Multi 3510 SET 1: Meter in a carrying case with pH electrode SenTix® 940, buffer 4, 7, KCl 3 mol/l, conductivity standard, batteries, USB cable

Multi 3510 SET 3: Meter in a carrying case with conductivity sensor TetraCon® 925, conductivity standard, batteries, USB cable

**Multi 3510 IDS SET 4:** Meter in a carrying case with optical oxygen sensor FDO® 925, batteries, USB cable

#### **Specifications**

Memory: manual: 500 data records automatic: 4500 data records
Dimensions (W x D x H): approx. 180 x 80 x 55 mm

Weight: 400 g

Power supply: 4 alkaline batteries, USB

IP code: IP 67

Type	Description	PK	Cat. No.
71	· · · · · · · ·		
Multi 3510	1 channel, meter only	1	6.282 979
Multi 3510 SET 1	1 channel, SenTix® 940	1	6.282 978
Multi 3510 SFT 3	1 channel, TetraCon® 925	- 1	6.283 710
		_	
Multi 3510 SET 4	1 channel, with FDO® 925	1	6.270 393

# pH TESTER POCKET TESTER SD10 pH





Pocket Tester with waterproof housing for measuring pH, mV, and temperature.

- Up to 3 calibration points
- With stability indicator, alarm for limits, auto-hold, and auto-off function
- Battery operation (4 x AAA batteries)

#### **Specifications**

pH measuring range: 0.00 ... 14.00 Resolution: 0.01

Accuracy:  $\pm 0.01$  ( $\pm 1$  digit) mV measuring range:  $-1000 \dots 1000$  mV

Resolution: 1 mV
Accuracy: ±0.2% FS
Protection class: IP 67

Туре	PK	Cat. No.
SD10 nH	1	4.694 724

# **SAFETY STORAGE CABINETS V-MOVE 90**



Safe and proper storage





The space-saving vertical drawer Safety storage cabinets provide an overview and simple access to the stored containers. Safe and approved storage of flammable hazardous substances in working areas.

- Space-saving vertical drawer
- Electronic opening and closing
- Standard serial closing after approx. 60 seconds with visual and acoustic signals for drawer closure
- Lockable with cylinder lock (integration in an existing locking system possible) and locking state indicator (red/green)
- Adjusting aids to compensate for uneven floor
- Integrated air ducts ready for connection (DN 75) to an exhaust system

Scope of supply: Cabinet with 5 x shelfs (1-I bottles), 1 x perforated insert, 1 x bottom collecting sump

#### **Specifications**

Outer dimensions (W  $\times$  D  $\times$  H): 450 x 863 x 1966 mm Internal dimensions (W  $\times$  D  $\times$  H): Net weight (corpus):

331 x 773 x 1750 mm 344 kg

Туре	Colour	PK	Cat. No.
V90.196.045	Light grey	1	4.662 147

# LABORATORY/ **MEDICAL SADDLE STOOL**



- High seating comfort
- Made in the EU





Laboratory/Medical saddle stool with castors

- Intuitive 3D seat dynamics
- 3-zone upholstery foam
- Seamless and crease-free upholstery (Imitation leather)
- Polished aluminium base

Туре	Seat height adjustment	PK Cat. No.
	mm	
Saddle stool	540 - 800	1 6.521 481

### **DISPOSAL CONTAINER SHARPSAFE®**





Nominal capacity	Dimensions (W x D x H) mm	Print Languages	PK	Cat. No.
4	175 x 175 x 245	DE/UK/FR/IT/ES	1	4.688 125
7	175 x 175 x 380	DE/UK/FR/IT/ES	1	4.688 126
9	175 x 175 x 498	FR/NL	1	4.688 127
9	195 x 292 x 291	FR/NL	1	4.688 129
13	195 x 292 x 353	FR/NL	1	4.688 128
24	230 x 450 x 335	UK	1	4.688 130

# WASTE DISPOSAL CANS





Duran® glass. Efficient, secure intermediate storage of aggressive laboratory objects. Can be used almost anywhere. Resistant to most acids and alkalis. Very stable. Orange lacquer coating and hazard signs.

Capacity	PK	Cat. No.
Litres		
4	1	9.032 848
8	1	9.032 850
15	1	9.032 852

# **BUNSEN BURNERS** WITH NEEDLE VALVE





DIN 30665. Air regulation.

mm g Natural gas 155 220 1 9.	. No.
Natural rac 155 220 1 9	
Natara 903 133 220 1 3.	18 361
Propane gas 155 220 1 9.	18 362

### **TRIANGLE**





Zinc-plated steel wire with pipeclay tubes.

Pipeclay tube Length	Weight	PK	Cat. No.
mm	g		
40	16	1	9.033 740
50	33	1	9.033 741
100	58	1	6.085 914

### TRIPOD STAND





Chrome-plated steel. Tripods are meant to be used in conjunction with wire gauze, triangles or a sand bath.

Diam.	Description	PK	Cat. No.
mm			
125	Total height 200 mm	1	6.242 704

# GAS LIGHTER, **PIEZO IGNITION**





Aluminium shaft. Adjustable flame. Piezo ignition. Safety lock. Integrated eyelet. The lighter comes already filled and includes a protection cap.

Description	PK	Cat. No.
Gas lighter, piezo-electric, adjustable flame	1	7.699 990

# SAFETY BUNSEN BURNER, **SCHUETT PHOENIX II**



Ideal for safety cabinets

schuett-biotec.de





For sterilising, heating, flame sterilising. For use in every microbiological laboratory or safety cabinets.

- Controlled burning time 1 sec to 120 min (selectable) Automatic safety shut-off (selectable)
- Overheating protection/burner control by sensors

Suitable for use with natural gas (central gas) or butane/propane gas (gas cartridges). Integrated stands for tilting right or left. Safety standard acc. to DIN 30665 part 1, DIN-DVGW

Schuett Phoenix II eco: (with LED control lamp and foot-switch) Start flame by foot-switch or button (On/Off). Best suited for use in microbiological safety cabinets. Best price-to-performance ratio.

Schuett Phoenix II standard: (brilliant colour display, selection of native language, sensor and foot-switch) Start/Stop flame by activating sensor 1x or 2x, use foot switch or press button by hand. Continuous display of timer.

Schuett Phoenix II accu: (brilliant colour display, selection of native language, sensor and built-in extra heavy duty power cells) Start/stop flame by activating sensor 1x or 2x, use foot-switch or press button by hand. Continuous display of timer and battery power. Operates for up to 30 hours, intermittent use. Complete with battery charger for 3-hour recharging. Ideal for mobile usage.

Power supply: 100 - 240 V, 50/60 Hz

Туре	PK Cat. No.
schuett phoenix II eco*	1 9.018 760
schuett phoenix II standard*	1 9.018 761
schuett phoenix II accu	1 9.018 762
*incl. foot switch, stainless steel	

# **GENOMICS / PROTEOMICS**

# WATER FOR MOLECULAR BIOLOGY NOT DEPC TREATED



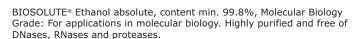
DNase-, RNase- and protease-free water for versatile use in molecular biology. BIOSOLUTE® water for molecular biology is produced by a combination of reverse osmosis and ion exchange purification, then sterile-filtered with a pore size of 0.1  $\mu m.$  It is free of chemical additives and not treated with diethyl pyrocarbonate (DEPC).

Description	Package size	PK Cat. No.
Water for molecular biology	500 ml	1 7711.0500
Water for molecular biology	1	1 7711.1000

# ETHANOL ABSOLUTE FOR MOLECULAR BIOLOGY (MIN. 99.8%)









① Danger H225 H319 P210 P240 P241 P260 P280 P303+P361+P353 P305+P351+P338 P501

Description	Package size	PK Cat. No.
Ethanol absolute for molecular biology	500 ml	1 9589.0500
Ethanol absolute for molecular biology	1000 ml	1 9589.1000

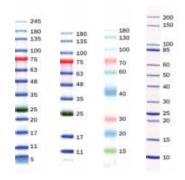
# SODIUM CHLORIDE SOLUTION 0.9%, STERILE, ENDOTOXIN-, DNASE-, RNASE AND PROTEASE-FREE, FOR CELL CULTURE





Description	Package size	PK Cat. No.	
Sodium chloride solution 0.9%, sterile, endotoxin-, DNase-, RNase- and protease-free, for cell culture	500 ml	1 8699.05	00
	1000 ml	1 8699.10	00

### PROTEIN MARKER





Ready-to-use standards for use as protein markers in your SDS-PAGE. Pre-coloured markers are suitable for checking the separation during the electrophoresis run or the efficiency of protein transfer to a membrane. As the colour changes, molecular weight of the proteins differs from that of the unstained markers, unstained protein standards are used for accurate molecular weight determination.

#### SERVA unstained protein standard IV:

- 12 unstained proteins, 10 to 200 kDa
- Precise molecular weight determination in SDS-PAGE gel
- Testing the transfer efficiency in Western blotting

#### SERVA Triple Colour Protein Standard I

- Protein ladder of 9 recombinant, pre-coloured proteins, 15 to 180 kDa
- for testing the transfer efficiency of Western blotting
- for approximate size determination of proteins
- Mixture of 10 pre-coloured proteins, 11 to 180 kDa (protein standard II)
- 13 pre-coloured proteins 5 to 245 kDa (protein standard III)
- Tracking the protein separation in the gel
- Estimation of the protein sizes

Description	Capacity	PK Cat. No.	
	μl		
SERVA Uncoloured Protein Standard IV	500	1 39250.0	1
SERVA Triple Colour Protein Standard I	500	1 39251.0	1
SERVA Triple Colour Protein Standard II	500	1 39257.0	1
SERVA Triple Colour Protein Standard III	500	1 39258.0	1

# SQUARE MEDIA BOTTLES, PET, STERILE





For safe storage and transportation of cell culture media. The bottles are manufactured at aseptically sterile production halls and then sent to gamma sterilisation.

- Thick walls and crush-resistant corners
- Square shape
- Embossed volume graduations

Nominal capacity ml	Dimensions (W x D x H) mm	PK	Cat. No.
125	53 x 53 x 105	40	9.073 276
250	59 x 59 x 147	45	9.073 277
500	77 x 77 x 174	21	9.073 278
1000	93 x 93 x 214	15	9.073 279

### PRECISION FREEZE





Protection against freezing too quickly: the LABSOLUTE® Precision Freeze, made of PC and filled with 100% isopropyl alcohol, guarantees a slow, reproducible freezing process of -1 °C/min. The samples are protected against contact with the isopropyl alcohol thanks to the internal tube holders made of HDPE, and even the labelling of the samples remains undamaged. For thawing, the handy tube holder can also be used as a floating stand in the water bath when thawing the samples.

- Constant cooling rate of -1°C/min
- Stackable container with foam inlay
- Housing made of PC
- Lid and tube holder made of HDPE

Description	Array	PK	Cat. No.
For 1.2 ml to 2.0 ml cryo tubes	18	1	7.696 223

# **QUICK FREEZE, PC**





A handy alternative to the dry ice solvent bath: the LABSOLUTE® Quick Freeze was developed for the rapid cooling of samples - 1.5 ml  $H_2O$ , for example, only needs approx. 3 minutes to be cooled down to  $0^{\circ}$ C. Precool for at least 24 hours at max. -80°C before use.

- Rapid and controlled cooling of samples
- Delivery includes 12 adapters for converting the 2.0 ml hole to 0.5 ml tubes  $\,$
- Housing and lid made of PC
- Filled with non-toxic insulation solution

Description	Array	PK	Cat. No.
For 0.5 ml to 2.0 ml	12	1	7.696 224

### **CRYO TUBES, PP**





Screw cap with star-shaped notch, ideal for automatic capper/decapper. Temperature resistant down to -196 °C. Do not use in the nitrogen liquid phase. Labelled with an individual barcode for each tube for quick and clear identification.

- Packed in bags of 50 pieces
- DNase/RNase free
- sterile

Capacity	Thread	Height	Ø	PK	Cat. No.
ml		cm	mm		
1.2	External	4.13	12.60	500	7.696 650
1.2	Internal	4.25	12.60	500	7.696 651
2.0	External	4.69	12.60	500	7.696 652
2.0	Internal	4.77	12.60	500	7.696 653

### LLG-PIPETTE CONTROLLER EASY

The LLG-Pipette controller easily enables fast and exact pipetting with glass and plastic pipettes.

- Ergonomic and lightweight construction for constant ease of use over prolonged usage
- Unique nose cone angle for enhanced flexibility in operation e.g. in fume hoods
- Eco-friendly rechargeable
   NiMH batteries, offering up t
   8 hours of continuous working

- Autoclavable tip cone for avoiding cross-contamination

**Scope of supply:** Pipette controller, manual, charger, wall-mount, desktop stand



Description	Plug type	PK	Cat. No.
LLG-Pipette controller easy	EU	1	6.263 683
LLG-Pipette controller easy	UK	1	6.263 684

# SEROLOGICAL PIPETTES, STERILE, PS





The standard serological pipettes from LABSOLUTE® are individually packaged in an easy-to-open paper/plastic blister.

Capacity	Grad.	Colour	Negative grad.	PK Cat. No.
ml	ml		ml	
1	1/100	Yellow	0.3	500 7.695 550
2	1/100	Green	0.6	500 7.695 55
5	1/10	Blue	3	200 7.695 553
10	1/10	Orange	3	200 7.695 553
25	2/10	Red	8	150 7.695 55 <sub>4</sub>
50	5/10	Purple	10	100 7.695 55

# SEROLOGICAL PIPETTES, SHORT VERSION, STERILE, PS





The short version of the serological pipettes from LABSOLUTE® is with 23.5 cm significantly shorter than the normal pipette. It is specially designed for liquid handling operation in limited working space and enables a comfortable and safe working.

Capacity	Grad.	Colour	Negative grad.	PK Cat. No.
ml	ml		ml	
5	1/10	Blue	3	200 7.695 556
10	2/10	Orange	10	150 7.695 557
25	5/10	Red	9	100 7.695 558

### **STAINING SOLUTIONS**

Now new in our range - BIOSOLUTE® staining solutions for histology. This range offers you many products of reliable quality at attractive prices.













Description	GHS	Signal word	Hazard warnings	Volume		PK	Cat. No.
Mayer's Hemalum solution *				500 ml		1	9290.0500
				11		1	9290.1000
				2.5		1	9290.2500
Schiff's reagent *	♠ ♠	Attention	H290 H319	500 ml		1	8190.0500
	V V			11		1	8190.1000
Giemsa's azur eosin methylene blue solution *	<ul><li>♦</li><li>♦</li><li>♦</li></ul>	Danger	H225 H301+H311+H331 H370	500 ml		1	9380.0500
	A A A A			11		1	9380.1000
				2.5		1	9380.2500
May Gruenwald's solution *	♠ ♠ ♠	Danger	H225 H30+H311+H331 H370	500 ml		1	8780.0500
	<b>~ ~ ~</b>			1		1	8780.1000
				2.5		1	8780.2500
Eosin Y solution 0.5 % aqueous *				11		1	9590.1000
				2.5		1	9590.2500
Hematoxylin solution modified acc. to Gill $\mathrm{III}^*$	♦ ♦ ♦	Danger	H302 H318 H373 H412	2.5		1	9260.2500
AND TO GO WITH IT							
Immersion oil *	(1) (k)	Warning	H302 H411	100 ml	1 9180.0100	170,00	119,00
* Not an IVD product!							

# SHIPPING CONTAINERS FOR OBJECT CARRIERS





The cuboid LABSOLUTE® slide containers for microscope slides made of neutral PP are unbreakable and have an opening at the side. They offer space for up to 5 slides (approx. 76 x 26 mm), which can be stored and transported without touching each other.

Description	PK	Cat. No.
Slide mailer	25	7.695 065

# **SLIDE FOLDERS, CARDBOARD**





Recesses for safe storage. Thumb cuts for easy slide removal. Printed index. Black. Suitable for microscope slides with 76 x 26 mm.

Capacity	Dimensions W x H x D	PK Cat. No.
	mm	
20 slides	208 x 9 x 341	1 7.695 060

### STAINING JAR ACC. TO COPLIN







The LABSOLUTE® staining jar according to Coplin is made of soda-lime glass and is therefore particularly resistant to a wide range of chemicals. The internal dimensions of the chamber are approx. 85x28x28 mm (HxWxD). It holds about 60 ml.

- Capacity up to 10 slides 76x26 mm
- Round base for a safe stand
- Glass lid
- Autoclavable

Description	PK	Cat. No.
Staining jar acc. to Coplin	1	7.695 070

# MICROSCOPE SLIDES, **CUT EDGES**





LABSOLUTE® microscope slides made of soda-lime glass comply with DIN ISO 8037-1 and 8037-2. This means they are the ideal solution for excellent and reproducible microscopy results. The microscope slides, measuring approx. 76 x 26 mm, have a thickness of around 1 mm and are delivered pre-cleaned and ready for use. The 20 mm wide, coloured or colourless frosted area is at one end on one side.

Cut microscope slides are particularly economical and therefore represent an excellent alternative to the ground versions, for routine tasks. The corners and edges are 90° for all cut microscope slides.

Description	Writing area	PK Cat. No.
Without frosted area		50 7.695 001
With frosted area		50 7.695 002
With frosted area	White	50 7.695 005
With frosted area	Blue	50 7.695 006
With frosted area	Yellow	50 7.695 008
With frosted area	Green	50 7.695 009

# **COVER GLASSES, RECTANGULAR,** THICKNESS 1 (0.13 - 0.16 MM)





The LABSOLUTE® cover glasses made of highly resistant borosilicate glass 3.3 of the first hydrolytic class are the perfect addition to every microscopy system. They are guaranteed free of contamination, bubbles or smears and comply with DIN ISO 8255-1 and 8255-2. The cover glasses are supplied in especially handy and secure boxes.

Dimensions	PK	Cat. No.
mm		
15 x 15	200	7.695 022
18 x 18	200	7.695 023
20 x 20	200	7.695 024
22 x 22	200	7.695 025
24 x 24	200	7.695 026
21 x 26	200	7.695 027
24 x 32	100	7.695 028
24 x 40	100	7.695 029
24 x 50	100	7.695 030
24 x 60	100	7.695 031

### LIGHT MICROSCOPES **EDUCATIONAL-LINE OBE 12/13**



The fully equipped all-round compound microscope for school, training and laboratories.

- Monocular (OBE 121, 131): Tube 30° inclined
- Binocular (OBE 122, OBE 132): Tube Butterfly 30° inclined, 360° rotatable
- Trinocular (OBE 124, 134): Tube Butterfly 30° inclined, 360° rotatable Widefield Eyepiece: WF  $10x/18\ mm$
- Diopter adjustment at bino- and trinocular Version available (at one eyepiece tube)
- Quadruple nosepiece
- Coaxial pre-and fine focusing
- ABBE 1.25 condenser focussed with aperture diaphragm
- Dimmable 3 W LED illumination
- Storage compartment on the rear side
- USB connection (only as power source)
- Dust Cover, eyepiece rubber caps and manual instruction included
- Achromatic objective

Total dimension

 $(W \times D \times H)$ : 360 x 150 x 320 mm

Weight: 4.6 kg 230 V/50 Hz, Power supply:

external power bank via USB

Туре	Description	PK	Cat. No.
OBE 121	Monocular, 4x, 10x, 40x	1	4.670 979
OBE 122	Binocular, 4x, 10x, 40x	1	4.670 980
OBE 124	Trinocular, 4x, 10x, 40x	1	4.670 981
OBE 131	Monocular, 4x, 10x, 40x, 100x (oil immersion)	1	4.670 982
OBE 132	Binocular, 4x, 10x, 40x, 100x (oil immersion)	1	4.670 983
OBE 134	Trinocular, 4x, 10x, 40x, 100x (oil immersion)	1	4.670 984

### **MICROSCOPE SLIDE BOXES, PS**



The LABSOLUTE® slide storage boxes are made of stable PS and will be delivered with a dustproof lid. The boxes can be stacked for space-saving and safe storage. Numbered positions on the bottom and an index table facilitate the identification and organization of your preparations.

- For 50 microscope slides (76 x 26 mm)
- Available in different colours
- Temperature-resistant down to -40°C
- Dimensions (W x H x D): 170 x 30 x 83

Colour	PK	Cat. No.
Blue	1	7.695 040
Yellow	1	7.695 041
Green	1	7.695 042
Red	1	7.695 044
Black	1	7.695 045
White	1	7.695 047

# Reagecon

# STANDARDS FOR FLAME **PHOTOMETERS**



Suitable for calibration, control, IQ/OQ and method validation. Compatible with all Flame Photometry Instruments. Available as single-element analytical standards (in ppm) or Multi-element clinical standards (in mmol/l). NIST traceable. HDPE bottles of 500 ml.

Type	Measuring	PK	Cat. No.
	range		
Barium	1000 ppm	1	4.012 213
Lithium	1000 ppm	1	4.012 214
Potassium	1000 ppm	1	6.210 151
Sodium	1000 ppm	1	6.210 152
Calcium	1000 ppm	1	6.210 153
Sodium / Potassium	100 / 100 mmol/L	1	4.012 215
Sodium / Potassium	120 / 2 mmol/L	1	4.012 216
Sodium / Potassium	140 / 5 mmol/L	1	4.012 217
Sodium / Potassium	160 / 8 mmol/L	1	4.012 218
Sodium / Potassium	160 / 80 mmol/L	1	4.012 219
Rinse solution	-	1	6.286 180

# CHEMICAL OXYGEN DEMAND (COD) **STANDARDS**



These standards are ideal for use as control standards to verify that correct analysis for COD has taken place. Extensive range (10 to 60000 ppm), NIST traceable, 2 years shelf-life. HDPE bottle of 500 ml.

Туре	Measuring range mg / I	PK	Cat. No.
COD10	10	1	4.012 235
COD20	20	1	6.286 181
COD50	50	1	6.234 998
COD100	100	1	6.234 999
COD200	200	1	6.206 516
COD500	500	1	6.234 552
COD600	600	1	6.206 517
COD1000	1000	1	6.232 202
COD1300	1300	1	6.206 518
COD1500	1500	1	6.238 379
COD2000	2000	1	6.286 182
COD3000	3000	1	6.286 183
COD5000	5000	1	4.012 236
COD6000	6000	1	6.286 184

### TURBIDITY STANDARDS



Highly accurate turbidity standards composed of suspended microspheres, suitable for Instrument calibration and control of all turbidity meters. Stable, shelf life of 2 years (from Date of Manufacturing). NIST traceable, US EPA approved and tested in compliance with ISO 7027. HDPE bottles of 100 ml.

#### Two ranges available:

- Ratio range for Ratio Turbidity Measuring instruments (a measure of the scattered light from the sample at a 90° angle from the incident light, plus at additional angles (several detectors)

   Non-Ratio for Non-Ratio Turbidity Measuring instruments will measure the scattered light from the sample at a 90° angle from the incident light (one detector)
- from the incident light (one detector)

Description	Volume	PK	Cat. No.
	ml		
Non Ratio 0.0 NTU	100	1	6.233 961
Non Ratio 0.1 NTU	100	1	6.075 473
Non Ratio 20 NTU	100	1	6.233 962
Non Ratio 200 NTU	100	1	4.012 096
Non Ratio 800 NTU	100	1	4.012 099
Ratio 0.0 NTU	100	1	4.012 057
Ratio 0.1 NTU	100	1	6.233 012
Ratio 15 NTU	100	1	6.286 185
Ratio 100 NTU	100	1	4.012 076

# **COLOUR STANDARDS** PLATINUM-COBALT (HAZEN)



These colour standards can be used to calibrate, control, qualify or validate colour measurement instruments to determine the colour number. These standards are Platinum-Cobalt, Pt-Co, Hazen or APHA colour. All descriptions are interchangeable.

- Covers requirements of ASTM Method D 1209
- In 1 I HDPE bottle

Description	PK	Cat. No.
Pt-Co Hazen 0	1	4.012 117
Pt-Co Hazen 5	1	6.257 411
Pt-Co Hazen 10	1	6.235 802
Pt-Co Hazen 15	1	4.675 390
Pt-Co Hazen 20	1	6.257 412
Pt-Co Hazen 25	1	4.012 118
Pt-Co Hazen 30	1	4.675 391
Pt-Co Hazen 40	1	4.012 119

# **ANALYTICAL BALANCES ADVENTURER® AX**



- Fast stabilisation and reliable operation. Guarantees long-lasting weighing performance and accurate, repeatable results
- The touchscreen with a wide reading angle allows access to all applications
- Low space requirement due to two-part, top-mounted draft shield doors
- Features: Two-piece, top-mounted, space-saving draft shield with removable panels (0.1 mg and 0.001 g models). AutoCal™ automatic internal calibration or external calibration. Illuminated level control. Selectable environmental and auto pressure settings. Integrated below-balance weighing hook. Fully covering labour protection cover. Software lock switch

### **Specifications**

Readability: 0.1 mg Ø weighing plate: 90 mm

100...240 V/50/60 Hz Power supply:

Туре	Weighing range g	PK	Cat. No.
AX124	120	1	6.268 193
AX224	220	1	6.268 196
AX324	320	1	6.268 199

# **WEIGHING BOATS, SQUARE, PS**



PS. Flat bottom for a secure stand. Smooth surfaces. Antistatic. Biologically inert. Temperature resistant from -10 °C up to 70 °C. Food-grade compliant. Can be used with microwave moisture analyzers.

Volume ca.	Dimensions W x H x D	PK Cat. No.
ml	mm	
10	46 x 8 x 46	500 7.696 256
100	85 x 24 x 85	500 7.696 257
330	140 x 22 x 140	500 7.696 258

# **PRECISION BALANCES ADVENTURER® AX**





- Fast stabilization and reliable operation to ensure solid weighing performance and accurate, repeatable results
  The wide viewing angle 4.3" colour touchscreen provides access
- to all applications
- The 0.01 g models feature large weighing pans
- Communication: RS232, USB Host, USB Device (included). GLP/GMP compliant data output with real-time clock
- Design features: Two-piece, top-mounted, space-saving draft shield with removable panels on 0.1 mg and 0.001 g models. AutoCal $^{\rm TM}$ automatic internal calibration or external calibration. Level assist feature with illuminated level indicator. Selectable environmental and auto-print settings. Integral weigh below hook. Protective full housing in-use cover. Software lock switch

Туре	Weighing range	Readability	Plate dimensions mm	PK	Cat. No.
AX223	220	0.001	Ø 130	1	6.268 208
AX1502	1520	0.01	175 x 195	1	6.268 218
AX2202/E	2200	0.01	175 x 195	1	6.268 222
AX4202	4200	0.01	175 x 195		6.268 223
AX4202	4200	0.01	1/5 X 195	1	0.200 223

# SAMPLE DISHES WITH HANDLE, **ALUMINIUM**



The LABSOLUTE® sample dishes made of aluminium are stable in form but yet of low weight. The smooth and flat bottom guarantees a firm stand. With practicle hand grip. Temperature resistance guaranteed up

Dimensions (Ø x H) mm	PK	Cat. No.
43 x 12	100	7.696 265
57 x 14	100	7.696 266
70 x 16	100	7.696 267

LABSOLUTE'

LABSOLUTE'

# **VACUUM TECHNOLOGY**

# DIAPHRAGM VACUUM PUMPS LABOPORT® N820G/N840G, CHEMICALLY-RESISTANT



The compact pumps feature a control knob for manual adjustments of the flow rate, making them well-suited to a wide variety of applications. Due to the manual rotational speed control, the pumps are quiet, very energy efficient, and can be optimally adjusted following the application.

- Easy-to-clean surface
- The combination of PTFE pump head and PTFE-coated diaphragm makes the pump ideal for extremely aggressive/corrosive gases and vapours
- High level of compatibility with vapour and condensation
- Integrated gas ballast valve
- 3-color status display: In operation/Stand-by/Error
- ATEX-compliant by II 2/-G IIB+H2 T3 internal atmosphere only

#### **Specifications**

 Ultimate vacuum (abs.):
 6 mbar

 Operating pressure:
 0.1 bar

 Connectors for tube:
 ID 9/10 mm

 Permissible ambient temperature:
 5 ... 40 °C

 Pump head:
 TFM™ PTFE

 Diaphragm:
 PTFE-beschichtet

 Valves:
 FFPM

Туре	Flow rate L / min.	Dimensions (W x D x H) mm	PK	Cat. No.
N820G	20	163 x 259 x 220	1	4.672 375
N840G	34	177 x 289 x 240	1	4.672 376

# VACUUM TUBING, RUBBER (NR)





Red. Durometer 45 Shore A.

Int. diam.	Wall thickness
mm	mm
6	5
8	5

# FILTER FLASKS, WITH GLASS OLIVE, BOROSILICATE GLASS 3.3





Erlenmeyer shape. With glass olive. Borosilicate glass 3.3. ISO 6556 and DIN 12476. Autoclavable. Vacuum-proof. Due to the glass olive the flasks do not comply with the requirements of the equipment and product safety law.

Capacity	Neck Ø	Height	PK	Cat. No.
ml	mm	mm		
100	17	107	1	7.690 200
250	28	158	1	7.690 201
500	34	188	1	7.690 202
1000	37	242	1	7.690 203
2000	41	288	1	7.690 204

### **BUCHNER FUNNELS, PORCELAIN**





Glazed on the inside and outside. Comply with DIN 12905. Excellent resistance to acids and lyes with the exception of hydrofluoric acid.

Int. Ø	Filter Ø	PK	Cat. No.
mm	mm		
48	45	1	7.694 954
62	55	1	7.694 955
77	70	1	7.694 956
97	90	1	7.694 957
116	110	1	7.694 958
130	125	1	7.694 959
156	150	1	7.694 960
192	180	1	7.694 961

### **RUBBER GASKET SET**





The set consists of one gasket each with the following bottom diameters: 12, 17, 21, 27, 2, 33, 48, 58 and 66 mm.

Description	PK Cat. No.
Rubber gasket set	1 7.690 099

# **CENTRIFUGE TUBES, PP**







- Centrifugation: conical up to 16000 x g and with rim up to 3000 x g
- Free from DNase and RNase
- Endotoxin level: <0.5 EU/ml
- Sterile goods are gamma-sterilized (SAL 10<sup>-6</sup>)
- Available in bags (25 pcs/bag) or racks (15 ml tubes: 50 pcs/rack, 50 ml tubes: 25 pcs/rack)

Description	Volume	Sterile	Ø	Height	PK Cat. No.
	ml		mm		
Conical, in bags	15	No	16	120	500 7.696 712
Conical, in bags	50	No	28	115	500 7.696 717
Self standing, in bags	50	No	28	115	500 7.696 722

Powerful and versatile Universal Centrifuges for almost every laboratory application. The intuitive design of the centrifuges and accessories enables easy access to the parameter settings and quick change between applications.

Please order rotors separately.

**CENTRIFUGES** 

FRONTIER™ MULTI PRO FC5714

Allround Centrifuge

### **MICRO TUBES, PP**







The LABSOLUTE® micro tubes are made of high-quality PP and are resistant to mechanical and chemical stress. Simple and safe opening and closing of the vessel allow safe handling for greater comfort.

- Free of DNase, RNase and pyrogens
- Non-sterile
- Guaranteed metal-free
- Precise graduations lines on 1.5 and 2.0 ml reaction vessels
- Puncturable cap
- Matted cap with labelling field
- Can be centrifuged up to 25000 x g (1.5 and 2.0 ml) and 20000 x g (0.5 ml)
- Autoclavable at 121 °C

Volume ml	PK	Cat. No.
0.5	1000	7.696 734
1.5	500	7.696 753
2.0	500	7.696 754

### Specifications

 Max. RCF:
 18.624 x g

 Max. Speed:
 14.000 rpm

 Max. Load:
 4 x 100 ml

 Power consumption:
 240 W

Dimensions (W x D x H):  $362 \times 493 \times 330 \text{ mm}$ 

Weight: 30 kg

Power supply: 230 V, 50/60 Hz

Туре	PK	Cat. No.
,,,,,		Cuti III
ECE714	- 1	A 661 E2A

# FIXED ANGLE ROTOR FOR FRONTIER™ MULTI PRO FC5714



Description	PK	Cat. No.
Fixed angle rotor 12 x 15 ml, RB/FA, ID	- 1	4.661 550
Tixed digite fotor 12 x 13 fill, RD/TA, 1D	1	4.001 330
ID: Auto rotor identification, RB: Round bottom tubes, FA: Conical bottom tubes		

# **HEATING / INCUBATION / STIRRING**

# INCUBATING COOLING THERMAL SHAKERS





These Thermal Shakers are designed for heating and cooling applications that require consistent and precise high-speed shaking with dependable temperature control from 17 °C below ambient to 100 °C.

#### Without blocks. Please order separately

Туре	PK	Cat. No.
ISTHBLHTS	1	4.680 429
ISTHBLCTS (cooling)	1	4.680 428

### THERMAL SHAKER



The (cooling) thermal shakers are suitable for applications that require consistent and precise results. With their interchangeable blocks, these shakers can adapt to a wide range of tubes and microplates. Userfriendly 4.3-inch colour LCD touch screen. Advanced electronics and dual temperature sensors for accurate and reliable temperature settings across the entire operating range.

**Scope of supply:** Thermal Shaker incl. 1.5 ml block, clear rack and cover

LHTS Thermal Shaker         1 4.659 483           LCTS Cooling Thermal Shaker         1 4.659 482	Туре	PK	Cat. No.
LCTS Cooling Thermal Shaker 1 4.659 482	LHTS Thermal Shaker	1	4.659 483
	LCTS Cooling Thermal Shaker	1	4.659 482

### **MINI VORTEX MIXER**



The analogue model offers variable speed control, and the digital model allows you to enter the exact speed and time for repeatable results.

- Auto/Off/On Rocker switch
- Speed knob: variable 1 to 10 dial marks
- Continuous or TOUCH mode operation

**Scope of supply:** Vortexer incl. cup head and 76 mm head with cover

Туре	Rotation speed	PK Cat. No.
	rpm	
VXMNAL, Analog	300 2800	1 4.659 499
VXMNDG, Digital	500 2800	1 4.659 500

# MINI COOLING INCUBATOR LLG-uniINCU 20 COOL



- Compact and space-saving
- High temperature stability
- With internal socket









Digital mini incubator with cooling and heating function for cultivation of biological samples in small-volume vessels. With an internal power outlet for positioning small shakers, mixers, or other devices in the inner chamber.

- Good temperature stability of the set temperature (up to 15 °C below ambient temperature)
- Large inner chamber with 22 I capacity
- Fast heating and homogeneous temperature
- With built-in calibration function of up to  $\pm 5~^{\circ}\text{C}$

### **Specifications**

Temperature range:

Temperature accuracy:

Temperature accuracy:

Temperature uniformity:

External dimensions (WxDxH):

Internal dimensions (WxDxH):

Weight:

Power supply:

Ambient - 15 °C ... 60 °C

±0.5 °C (at 37 °C)

±1.5 °C (at 37 °C)

340 x 410 x 480 mm

235 x 260 x 360 mm

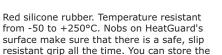
7.5 kg

100 ... 240 V, 50 ... 60 Hz

Туре	Nominal capacity l	Plug type	PK	Cat. No.
LLG-uniINCU 20 cool	22	EU	1	6.263 572
LLG-uniINCU 20 cool	22	UK	1	6.263 573

# HAND PROTECTOR GRIP HEATGUARD





hand protector grip by using one of the two

( LABSOLUTE

Description PK Cat. No.

Hand protector grip HeatGuard 1 7.696 925

evelets.

### **TUBE ROLLER RM 2**





Robust tube roller with gentle tilting and rolling movement. Suitable for all common tube sizes, bottles and other cylindrical vessels with a diameter of up to 80 mm.

- Gentle start-up for optimum development of cell cultures.
- Can be used at CO2 concentrations up to 5%.
- Drip tray and plastic rollers can be removed for easy cleaning

Scope of delivery: basic unit including 6 removable plastic rollers and

#### **Specifications**

Type of movement: rocking and rolling Amplitude/angle: 15 mm, 3° fixed Speed: 5 ... 80 rpm Max. load: 2 kg Number of rollers:

0 ... 99 h 59 min/continuous Timer:

5 ... 45 °C Temperature range: Max. CO2 range: 5%

Max. humidity: 85%, not condensing Dimensions ( $W \times D \times H$ ): 244 x 465 x 115 mm Roller size (I x Ø): 300 x 32 mm

7.3 kg Weight:

Power supply: 100 ... 240 V, 50/60 Hz

Protection class: IP 21

Туре	PK	Cat. No.
RM 2	1	4.663 359

# MINI COOLERS, PC





Mini coolers are designed to protect a wide range of solutions (enzymes, DNA, RNA, cell suspensions) by helping to maintain freezer temperatures on the lab bench. Durable polycarbonate filled with non-toxic gel. Mini coolers hold twelve 0.5 ml to 2.0 ml tubes.

Colour	Temperature- maintained on lab bench	PK Cat. No.
Red	0 °C, up to 60 min	1 6.802 253
Yellow	-20 °C up to 60 min	1 7.300 442
White	-70 °C up to 45 min	1 7.090 437

# **THERMO SHAKER** LLG-uniTHERMIX 1 PRO









The LLG-uni $THERMIX\ 1$  pro is ideal for shaking and tempering various tubes or plates (depending on the block used). The high-temperature stability, fast heating rate and excellent mixing results make it perfect for the life science sector. The heating blocks are magnetically attached to the LLG-uniTHERMIX 1 pro and do not need to be screwed in place.

#### Blocks must be ordered separately.

#### **Specifications**

Temperature range RT + 5 °C ... approx. 100 °C Temperature control: ±0.5 °C (at 20 ... 45 °C) ±0.5 °C (at 20 ... 45 °C) Uniformity: Max. heating rate: 5.5 °C/min Speed range: 300 ... 1500 rpm Orbit: 3 mm Display: LCD 6 stages, 9 programs Programs: Timer: 1 ... 99 hours or continuous Dimensions (W  $\times$  D  $\times$  H): 200 x 235 x 120 mm Weight: 7.3 kg 220 ... 240 V, 50/60 Hz Power supply:

Туре	Plug type	PK	Cat. No.
LLG-uniTHERMIX 1 pro	EU	1	6.263 482
LLG-uniTHERMIX 1 pro	UK	1	6.263 483

# HEATING BLOCKS FOR LLG-uniTHERMIX 1 PRO

For	PK	Cat. No.
24 tubes, 1.5 ml	1	6.263 487
24 tubes, 2 ml	1	6.263 494
8 tubes, 15 ml	1	6.263 496
4 tubes, 50 ml	1	6.263 497
96/384 microplate	1	6.263 499

# MINI COOLERS -20 °C, PC





The yellow LABSOLUTE® mini coolers -20 °C made of robust PC are filled with a non-toxic cooling gel. Pre-cool for at least 24 hours at -20 °C to -25 °C before use.

- Maintains the temperature of -20 °C for at least 1 hour

Description	Array	PK Cat. No.
For 0.5 ml to 1.5 ml micro tubes and cryo tubes	12	1 7.696 221
For 0.5 ml to 2.0 ml micro tubes and cryo tubes	20	1 7.696 222
For 5 ml micro tubes	12	1 7.696 219



### **MAGNETIC STIRRER MSL 25 AND MSL 50 DIGITAL**

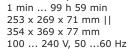
Magnetic stirrer with powerful, brushless motor for mixing large quantities. The recessed control panel protects against leaking liquids.

- Clear LCD

Power supply:

- Soft start
- SpeedServo  $\mbox{\tiny TM}$  technology keeps the speed constant even when viscosity changes
- Programmable auto-reverse function to change the direction of rotation
- Safety lock prevents unintentional changes to settings

**Specifications** MSL 25 | MSL 50 Stirring quantity: 25 | || 50 | 40 ... 1500 rpm || Speed range: 20 ... 1000 rpm 1 min ... 99 h 59 min Timer: Dimensions (W x D x H): 253 x 269 x 71 mm ||







Туре	Plug type		PK	Cat. No.
MSL 25 Digital	EU		1	6.313 616
MSL 25 Digital	UK		1	6.522 206
MSL 50 Digital	EU		1	6.491 202
MSL 50 Digital	UK		1	6.522 969

# **MULTI-POSITION MAGNETIC** STIRRER AMI 4, ILLUMINATED



# Stirring plates individually controllable



Multi-position magnetic stirrer with illuminated stirring positions for stirring volumes up to 5 l per position. With epoxy-coated metal housing.

- 4 stirring positions, individually adjustable
- Gentle start-up
- Illuminated stirring positions
- Electronic speed control up to 1100 rpm
- Low height

### **Specifications**

Stirring volume each (H<sub>2</sub>O): 1100 rpm Speed (max.): 150 mm Distance between stirring positions:

Dimensions (W  $\times$  D  $\times$  H): 600 x 270 x 55 mm Power supply: 100 ... 240 V, 50/60 Hz

Warranty: 3 years

PK Cat. No. Туре 1 4.666 685

### **MULTI-POSITION MAGNETIC** STIRRER MULTISTIRRER DIGITAL



With epoxy painted, robust steel housing and stainless steel set-up plate for protection against leaking liquids. Bright LED display for accurate speed monitoring and timer for unattended operation.

- Synchronous speed of all stirring positions
- Adjustable, time-controlled auto-reverse function
- Torque compensation to keep the speed constant in case of viscosity changes
- Also suitable for use with water baths

### **Specifications**

Max. volume each (H<sub>2</sub>O): Power rating: Speed range:

Number of stirring positions: Distance between stirring positions:

Stirring positions: Timer:

Auto reverse:

Dimensions (W x D x H): Power supply:

Warranty:

#### **MULTISTIRRER** Digital 6 // Digital 15

400 ml // 250 ml 3.6 W // 15.9 W 80 ... 1500 rpm 6 // 15 100 mm // 74 mm Ø 85 mm // Ø 64 mm 1 ... 900 min 5 ... 900 min 230 x 370 x 51.5 mm 100 ... 240 V, 50/60 Hz

3 years

Туре	PK	Cat. No.
MULTISTIRRER Digital 6	1	4.666 681
MULTISTIRRER Digital 15	1	4.666 682

### **MAGNETIC STIRRER TWISTER**



- Innovative Design

- Modular System





Without heating. The TWISTER is a universal and particularly compact mixing device with a magnetic drive, which can be expanded to a multi-position magnetic stirrer with a wide range of applications by connecting up to 30 devices in series. The stirring points can be controlled either separately or simultaneously (leader-follower principle).

- Intuitive and chemically resistant 360° LED glass display for conveying all information without an alphanumeric display
- Integrated beaker detection
- Changing the direction of rotation in definable intervals (reverse function).
- Suitable for operation in incubators up to 40 °C
- Cleaning under the tap is possible

**Set 1 Scope of delivery:** 1 x TWISTER magnetic stirrer, 1 x plug-in power supply unit with adapter, magnetic stirring bar **Set 2 Scope of delivery:** 2 x magnetic stirrers TWISTER,

1 x plug-in power supply unit with adapter, 2 x magnetic stirring bars **Set 3 Scope of delivery:** 3 x TWISTER magnetic stirrers, 1 x plug-in power supply unit with adapter, 3 x magnetic stirring bars

Set 4 Scope of delivery:  $4 \times TWISTER$  magnetic stirrers,  $1 \times plug$ -in power supply unit with adapter,  $4 \times magnetic stirring bars$ 

#### Specifications

Max. stirred volume per postion: 5 l
Speed range: 100 ... 3000 rpm
Permissible ambient temperature: 5 ... 40 °C
Permissible relative humidity: 80%
Material Top plate: Glass

Dimensions Top plate (W x D): 124 x 124 mm Dimensions (W x D x H): 135 x 135 x 24 mm

Weight: 0.6 kg

Power supply: 100 ... 240 V, 50/60 Hz

IP code: IP 66

Туре	Stirring capacity	PK	Cat. No.
TWISTER Set 1	5	1	4.685 997
TWISTER Set 2	10	1	4.685 998
TWISTER Set 3	15	1	4.685 999
TWISTER Set 4	20	1	4.686 000

### **ROCKING SHAKERS DUOMAX 1030**





The Duomax 1030 rocking shakers generate a 2-dimensional tilting movement and are suitable for Petri dishes, culture flasks, Erlenmeyer flasks and all standard vessels.

- With overheating protection that switches the device off in an emergency, important for unattended continuous use
- Infinitely adjustable speeds for all common standard vessels
- With timer function

### **Specifications**

Type of movement: rocking Tumbling angle: 5° or 10° Speed range: 2 ... 50 rpm Max. Load: 5 kg 1 ... 120 min Permissible ambient temperature: 5 ... 31 °C Permissible relative moisture: 80% 290 x 258 mm Platform dimensions (W x D): Power supply: 230 V, 50/60 Hz

Protection class acc. to DIN EN 60529: IP 40

Туре	Inclination angle	PK Cat. No.
	۰	
Duomax 1030	5	1 9.839 855
Duomax 1030	10	1 9.839 856

### **OVERHEAD STIRRERS OHS DIGITAL**

Powerful, robust overhead stirrers with display and electronic speed control. With integrated timer and overload, overtemperature and overcurrent protection.

- Stable torque over the entire speed range with automatic compensation
- Torque indication in the LED display
- Timer
- USB interface for installing software updates

#### Specifications

Speed range: 30 ... 2000 rpm

(OHS 100 Digital: 30 ... 1300 rpm)

Power rating: 190 W
Chuck range: Ø 1 ... 13 mm
IP code: IP 54

Power supply: 230 V, 50/60 Hz

Warranty: 3 years

Type	Stirring	max.	PK	C
	capacity	Viscosity		
	I	mPa.		
OHS 20 Digital	25	10000	1	4
OHS 40 Digital	25	25000	1	4
OHS 60 Digital	40	50000	1	4
OHS 100 Digital	100	70000	1	4





### **UV/IR-SPECTROSCOPY**

Reproducibility and precision are essential in spectroscopy. Attention must be paid to the use of suitable solvents and consumables during sample preparation.

LABSOLUTE® and CHEMSOLUTE® - your strong duo in analytics!

### **CHEMSOLUTE® SOLVENTS**



The Spectro grade series from CHEMSOLUTE  $\circledR$  is characterised by both high optical and chemical purity.

- High permeabilities
- Extremely low values for water content, evaporation residue, acidity and alkalinity

Description	Volume	GHS	Signal word	Hazard warnings	PK	Cat. No.
Aceton Spectro grade (min. 99,9%)	2,5	<b>(</b> )	Danger	H225 H319 H336 EUH066	1	2665.2500
Dimethylsulfoxid Spectro grade (min. 99,8%)	11	<b>(</b> )	Danger	H225 H319 H336 EUH066	1	2360.1000
Ethanol Spectro grade (min. 96,0%)	11	<b>(</b> )	Danger	H225 H319	1	5430.1000
n-Hexan Spectro grade (min. 99,0%)	2,5	(a) (b) (b) (b)	Danger	H225 H315 H361 H336 H373 H304 H411	1	1950.2500
Isooctan Spectro grade (min. 99,5%)	11	(1) (1) (2) (4) (4)	Danger	H225 H304 H315 H336 H410	1	1800.1000
Methanol Spectro grade (min. 99,9%)	11	<b>♦ ♦</b>	Danger	H225 H301+H311+H331 H370	1	1425.1000
2-Propanol Spectro grade (min. 99,8%)	2,5	<b>(</b>	Danger	H225 H319 H336	1	6530.2500

### **DISPOSABLE CUVETTES FROM LABSOLUTE®**



LABSOLUTE® disposable cuvettes for the VIS and UV range convince with their excellent optical properties and high transparency thanks to state-of-the-art production methods. You also benefit from the fact that all cuvettes in a packaging unit are sorted according to their nest of origin - so you receive technically identical cuvettes that avoid absorbance deviations. Packed in a handy, reclosable polystyrene magazine.

- Better heat transfer thanks to optimised shape and thin walls
- Recessed measuring surfaces: no scratching when inserting into the photometer
- Arrow marking of the radiation direction
- Layer thickness: 10 mm
- External dimensions (W  $\times$  H  $\times$  D): 12.5  $\times$  45  $\times$  12.5 mm



Description	PK	Cat. No.
Cuvettes VIS, macro 4.0 ml, 340-900 nm, PS	100	7.697 100
Cuvettes VIS, semi-micro 1.6 ml, 340-900 nm, PS	100	7.697 101
Cuvettes VIS, macro 4.0 ml, 300-900 nm, PMMA	100	7.697 102
Cuvettes VIS, semi-micro 1.6 ml, 300-900 nm, PMMA	100	7.697 103
UV cuvettes, macro 4.0 ml, 220-900 nm	100	7.697 104
UV cuvettes, semi-micro 1.6 ml, 220-900 nm	100	7.697 105

The chemical resistance of the cuvettes to solvents can be found in the technical data sheet.



Technical changes and errors excepted.
Our sales and delivery terms apply.

### Germany

Tel.: 0800 4393784 sales@thgeyer.de

### Switzerland

Tel.: +41 41 552 01 01 sales@thgeyer.ch

### Denmark

Tel.: +45 4630 0030 sales@thgeyer.dk

#### **Poland**

Tel.: +48 2242764-64 sales@thgeyer.pl

#### Sweden

Tel.: +46 8 6030200 sales@thgeyer.se

#### Other countries

Tel.: +49 7159 1637-823 sales@thgeyer.com

