

Hygiene Monitoring

Our program for hygiene control – in production, in public facilities and monitoring of hygienically sensitive areas.



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In recent years, the prevention of infection, environmental, residential and communal hygiene has become very important, also in day-to-day life. The institutions, organisations and facilities where **hygiene monitoring** is considered to be appropriate, necessary and in some cases even required by law, are diverse. These include medical facilities, the pharmaceutical industry and pharmacies, water-works and swimming pools, sports facilities and schools, hotels, gastronomy and industrial kitchens, industries that use cooling towers, food retailing and production, and many more.

Invariably, the objective of hygiene monitoring is to keep the risk of contamination for people, the environment, products and processes to a minimum. The main emphasis here is **cleaning and disinfection**, followed by **monitoring the success of cleaning and decontamination**.

Roth offers you a diverse range of products for hygiene monitoring, both for professional microbiological analysis, and also for quick and easy use by trained laypersons or for training purposes and internships.

For questions on **hygiene** (cleaning, sterilisation and disinfection):



Ms. Sproll



Ms. Inci



Ms. Dr. Baumann

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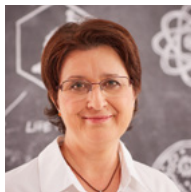
For questions on **monitoring** (laboratory microbiology, swabs and rapid tests, cooling water and evaporating units): :



Ms. Dr. Hübner



Ms. Nickschas



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Testing of Liquids and Surfaces

Microorganisms are ubiquitous in our environment and colonise every **surface** and virtually every **liquid**. Many of the bacteria and viruses that colonise our habitat are pathogenic.

In laboratories as well as in production, in medical care and catering, in refrigeration systems and in swimming pools, microbiological contamination can therefore pose risks to humans or animals. Only careful **quality control** in combination with consistent **hygiene monitoring** protects consumers and producers. Besides cleaning and disinfection, **checking surfaces and liquids** for microorganisms is the most important part of monitoring.

ATP Measurement with a System

Both ADP (adenosine diphosphat) and the more stable form AMP (adenosine monophosphate) are found in all living cells and, therefore, provide an exact and quantitative marker for the presence of bacteria, fungi or food residue. An enzyme/substrate complex in the LuciPac® sampling tube reacts with ATP, ADP and AMP to release bioluminescence whose intensity correlates directly with the quantity of ATP/ADP/AMP present. The Lumitester SMART fully converts this bioluminescence into a measurement result and is, therefore, the most sensitive measuring system available today.

Thus, liquids and surfaces can be quickly and easily tested for contamination by foodstuffs and microorganisms using the Lumitester SMART and the LuciPac® sampling pen. Within approximately 30 seconds, the Lumitester SMART can provide information on hygiene status or the efficiency of cleaning and disinfection procedures. The system is easy and safe to operate, even by non-professionals. Simply insert the sampling tube and close the unit. Then press the *Enter* button, and the measurement result will be displayed within 10 seconds.



Lumitester SMART

Kikkoman.

Easy-to-use, lightweight luminometer for ATP measurement. For reliable monitoring of liquids, dry and wet surfaces as part of hygiene control in the manufacturing sector, in the foodstuffs and animal feed sector, in patients- and health care, in gastronomy and trade, in training and in many other areas.

Lumitester SMART is **not** suitable for the detection of virus contamination.

- Lightweight and easy-to-use
- Fast and easy handling
- Highly sensitive, precise measurement of ATP, ADP and AMP
- Ready for use after 8 seconds
- Auto-calibration
- Definition of own limit values is possible
- Storage of the measurement results in the cloud
- Date and time internal to the device

General properties:

- Hygiene monitoring in three simple steps
- Data visualization via App
- Access from anywhere with cloud storage

Technical specifications:

Art. No.	1E37.1
Measurement duration	10 s
Display type	Organic-LED-Display
Port	USB, Bluetooth LE (Ver. 4.1)
Temperature range	5 to 40 °C
Unit of measurement	RLU
Data memory	2000 Analyses
Power supply	2 alkaline batteries (AA)
Weight	255 g
L x W x H	176 x 65 x 176 mm
Additional info	Date and time internal to the device

Suitable for use with LuciPac®Pen Aqua (Art. No. NC58) and LuciPac®A3 Aqua (Art. No. 1ENK) for monitoring liquids or with LuciPac®Pen (Art. No. NC59) and LuciPac®A3 (Art. No. 1ENH) for the analysis of surfaces.

Delivery incl. 2 alkaline batteries (AA), 3 cleaning brushes, USB-Cable, strap, quick guide

Please order separately: LuciPac®Pen Aqua (Order No.No. NC58), LuciPac®Pen (Order No. NC59), LuciPac®A3 Aqua (Order No. 1ENK), LuciPac®A3 (Order No. 1ENH) and Lumitester LED Test Stick (Order No. NC60.1).

Type	Art. No.	Pack Qty.
Lumitester SMART	1E37.1	1 unit(s)

Testing of Liquids and Surfaces

LuciPac® Pens **NEW/+** ready-to-use **S**

For the reliable monitoring of dry and moist **surfaces** as well as **solutions** in the manufacturing industry, in the food and feed sector, in patient care and nursing, in gastronomy and trade, in training and in many other areas.

Please note: LuciPac®Pen is **not** suitable for the detection of virus contamination.

All advantages:

- Quick and easy sampling
- Easy and quick measurement within seconds
- Sensitive and reproducible measurement

LuciPac® Pen Aqua

sterile, for hygiene control of liquids

Kikkoman.

Storage temperature: +4 °C
WGK 1



Art. No.	Pack Qty.	Pack.
NC58.1	20 unit(s)	aluminium bag
NC58.2	100 unit(s)	aluminium bag

LuciPac® Pen

sterile, for hygiene control of surfaces

Kikkoman.

Storage temperature: +4 °C
WGK 1



Art. No.	Pack Qty.	Pack.
NC59.1	20 unit(s)	aluminium bag
NC59.2	100 unit(s)	aluminium bag

LuciPac® A3 **NEW/+**

sterile, for hygiene control of surfaces

Kikkoman.

Storage temperature: +4 °C
WGK 1



Art. No.	Pack Qty.	Pack.
1ENH.1	20 unit(s)	aluminium bag
1ENH.2	100 unit(s)	aluminium bag

LuciPac® A3 Aqua **NEW/+**

sterile, for hygiene control of liquids

Kikkoman.

Storage temperature: +4 °C
WGK 1



Art. No.	Pack Qty.	Pack.
1ENK.1	20 unit(s)	aluminium bag
1ENK.2	100 unit(s)	aluminium bag

Why A3 assay (ATP+ADP+AMP)?

A3 detects ATP+ADP+AMP offering higher sensitivity to find microorganisms and biofilms that others miss. Just as fast and easy to use as conventional tests, but its advanced chemistry produces superior detection to uncover contaminants that you may be missing.



Testing of Liquids and Surfaces

Agar Paddles / DipSlides

Using our **ROTI®DipSlides**, you can easily and quickly test both **liquids** and **surfaces** for microbial contamination. The different culture media of the **ROTI®DipSlides** allow you to test different microorganisms at the same time.

Our range includes DipSlides that can be used to check evaporative cooling systems, cooling towers and wet separators in accordance with **VDI Guideline 2047** and the **42nd BImSchV**. We also offer DipSlides for the preliminary inspection of large-scale systems for heating drinking water, as well as for the inspection of air conditioning systems (in accordance with **VDI guideline 6022**).

ROTI®DipSlides

Sterile dip slides with solid, ready-made culture medium for easy microbiological analysis of solutions and surfaces.

- **2 in 1:** Immersion culture media and impression agar
- Easy to use
- Reliable assay and easy interpretation
- Suitable for determining the microbiological contamination and for hygiene controls in a variety of domains
- Including detailed instructions-for-use



Summary ROTI®DipSlides

Detection of	Agar 1	Agar 2	Art. No.
whole germs + legionells	Plate Count Agar (PC)	Legionella Agar	2493
whole germs + enterobacteria	Plate Count Agar (PC)	Violet Red Bile Agar with Glucose (VRBD)	2924
whole germs + coliforms	Plate Count Agar (PC)	Violet Red Bile Agar with Lactose (VRB)	2925
whole germs + yeast/moulds	Plate Count Agar (PC)	Bengal Red Agar* (RBC)	2926
whole germs + yeast/moulds	Caso Agar with TTC	Bengal Red Agar (RBC) with antibiotics	3934
whole germs	Plate Count Agar (PC)	Plate Count Agar (PC)	2927
whole germs	Nutrient Agar	Nutrient Agar with TTC	2837
whole germs after disinfection	D/E Neutralizing Agar	D/E Neutralizing Agar	8023
whole germs + whole germs after disinfection	Plate Count Agar (PC)	Caso Agar with Lecithin/polysorbate 80	8715
enterobacteria	Violet Red Bile Agar with Glucose (VRBD)	Violet Red Bile Agar with Glucose (VRBD)	2954
yeast/moulds	Sabouraud 4 % Glucose Agar*	Sabouraud 4 % Glucose Agar*	2956
urinary tract bacteria + enterobacteria/coliforms	CLED Agar	MacConkey Agar	2957
enterobacteria + pseudomonads	MacConkey Agar	Cetrimide Agar	8045

* with chloroamphenicol

For safety information and additional data, see our current catalogue or at www.carlroth.com

Application:

- Remove carrier from sterile vial. Screw-cap serves automatically as holder.
- Press agar gently onto surface or immerse in liquid
- Replace carrier into vial and close cap
- Incubate vial with carrier at a temperature suitable for the bacteria

For easy interpretation of results, use the following table:

No. of colonies	Result	Interpretation
0	Negative	No contamination
1–10	Weakly positive	Weak contamination
11–20	Positive	Low contamination
21–100	Strongly positive	High contamination
>100	Highly positive	Very high contamination

Detection limit is 10² cfu/ml solution assayed.

For detailed instructions on interpretation see instruction-for-use.

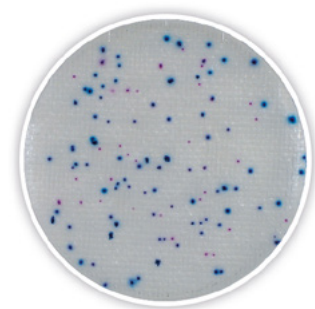
Testing of Liquids and Surfaces

CompactDry™ Ready-Made Plates

Dry ready-made plates for easy microbiological analysis of **solutions** and compact samples.

From NISSUI

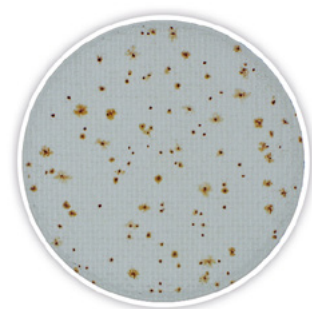
CompactDry™ plates are suitable for detection and enumeration of microorganisms from foods and feeds, cosmetics and pharmaceutical samples, as well as for hygiene monitoring and contamination control in food-producing areas. Due to the chromogenic additives, colonies depict specific colouring, making them easy to interpret.



CompactDry™

CompactDry™ plates are easy and safe to handle. Due to storage at room temperature, they may be used even on site. One millilitre of the sample to be analysed is applied onto the sterile plate surface, spreading itself evenly over the plate during rehydration of the medium. Dry sample matter is homogenised and solubilised using the CompactDry™ Dilution Rack (Art. No. 4823.1) prior to plate inoculation. By using the CompactDry™ swab (Art. No. 4809) it is also possible to test **surfaces**.

Growth area is 20 cm². Inner Ø 47 mm.



- Simple and safe to use
- Safely non-slip stackable
- Easy interpretation due to chromogenic additives and 1 x 1 cm grid
- Storage and transport at room temperature
- With detailed instruction-for-use
- Suitable for the control of foods and feeds, cosmetics and pharmaceutical samples, for hygiene monitoring and contamination control, for schooling and student's courses



Product name	General application	Art. No.	Pack Qty.
CompactDry™ CF	Ready-made plates with anhydrous chromogenic nutrient medium for detection of coliforms.	4827.1	40 unit(s)
		4827.2	240 unit(s)
CompactDry™ EC	Ready-made plates with anhydrous chromogenic nutrient medium for detection of coliforms in general, particularly <i>E. coli</i> .	4826.1	40 unit(s)
		4826.3	120 unit(s)
		4826.2	240 unit(s)
CompactDry™ ETB	Ready-made plates with anhydrous chromogenic nutrient medium for detection of enterobacteriaceae.	4828.3	8 unit(s)
		4828.1	40 unit(s)
CompactDry™ SL	Ready-made plates with anhydrous chromogenic nutrient medium for detection of salmonellae.	4828.2	240 unit(s)
		4817.1	40 unit(s)
CompactDry™ TC	Ready-made plates with anhydrous chromogenic nutrient medium for total germ count.	4817.2	240 unit(s)
		4816.3	8 unit(s)
CompactDry™ X-BC	Ready-made plates with anhydrous chromogenic nutrient medium for detection of <i>Bacillus cereus</i> .	4816.1	40 unit(s)
		4816.2	240 unit(s)
CompactDry™ X-SA	Ready-made plates with anhydrous chromogenic nutrient medium for detection of <i>Staphylococcus aureus</i> .	1070.1	40 unit(s)
		1070.2	240 unit(s)
CompactDry™ YM	Ready-made plates with anhydrous chromogenic nutrient medium for detection of yeasts and moulds.	1087.1	40 unit(s)
		1087.2	240 unit(s)
CompactDry™ Swab	All-in-one set of swab and nutrient broth for microbiological sampling of surfaces.	4818.3	8 unit(s)
		4818.1	40 unit(s)
CompactDry™ Swab	All-in-one set of swab and nutrient broth for microbiological sampling of surfaces.	4818.2	240 unit(s)
		4809.1	40 unit(s)
		4809.2	240 unit(s)

For safety information and additional data, see our current catalogue or at www.carlroth.com



Testing of Liquids and Surfaces

Ready-Made Culture Media Plates

Membrane filtration is used to detect a low microbial burden in **liquids**. Here, the liquid to be examined is pressed or sucked through a membrane. Microorganisms that cannot pass through the membrane are retained. Subsequent incubation of the filter on appropriate nutrient medium indicates the microbial load of the tested liquid.

Samples with an expected higher microbial content are prepared in a **dilution series**. Subsequently, the dilution steps are plated out on the nutrient medium and incubated. For evaluation, the grown colonies are counted.

Our **ROTI®Plate90** and **ROTI®Aquatest Plates** are suitable for testing liquids by membrane filtration or dilution series.

ROTI®Plate90

NEW / +



ready-to-use

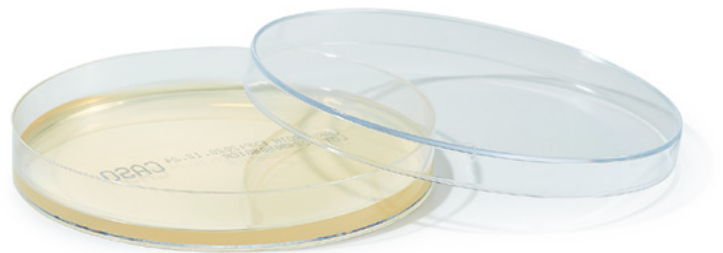
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Sterile ready-to-use culture media plates for microbiological analysis.

ROTI®Plate90 are prepared culture media plates with a diameter of 90 mm. They are thus adapted to the size of membrane filters for assaying of low-germ fluids by membrane filtration method.

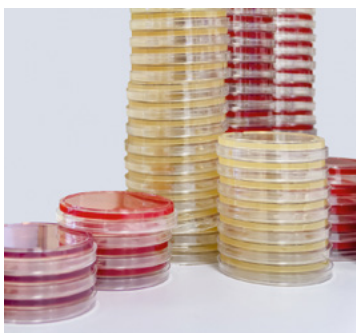
The plates are also applicable for the microbiological analysis of samples in general.

- Diameter 90 mm
- Surface 63,6 cm²
- Ready-to-use and sterile
- Easy to use, reliable detection and simple evaluation
- Well applicable for microbiological analysis of samples



Product name	General application	Art. No.	Pack Qty.
ROTI®Plate90 CASO	For the cultivation of non-demanding microorganisms.	1ATX.1	10 unit(s)
ROTI®Plate90 PCA	For total bacterial count of aerobic microorganisms.	1AX1.1	10 unit(s)
ROTI®Plate90 Sab4Cla	For selective isolation of yeasts and pathogenic fungi.	1AX0.1	10 unit(s)
ROTI®Plate90 TSA	For detection and counting of <i>E. coli</i> and other coliform bacteria in food and water samples.	1ATT.1	10 unit(s)
ROTI®Plate90 VRBD	For the cultivation of enterobacteria.	1AX2.1	10 unit(s)
ROTI®Plate90 YGC	For counting yeasts and moulds in milk and dairy products.	1ATY.1	10 unit(s)

For safety information and additional data, see our current catalogue or at www.carlroth.com



Samples and an offer for larger quantities are available from us upon request.

Contact us:

0800-5699000 | info@carlroth.de

Testing of Liquids and Surfaces

ROTI®Aquatest Plates

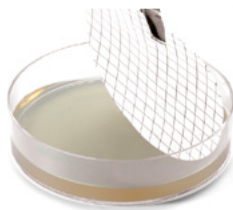


ready-to-use

S

Sterile culture medium plates for the microbiological analysis of **liquid samples**.

- Diameter 55 mm
- Surface 24 cm²
- Easy to use
- Optimal for the membrane filtration method
- Also well applicable for microbiological analysis of samples in general
- Prepared with our proven dehydrated nutrient media mixtures
- With detailed instructions-for-use



ROTI®Aquatest Plate PCA

APHA, ISO 4833, ready-to-use, sterile, for microbiology

For enumeration of the aerobic microbial flora.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.
9640.1	30 unit(s)	box

ROTI®Aquatest Plate Staph

Ph.Eur., ready-to-use, sterile, for microbiology

For isolation of pathogenic staphylococci.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.
9650.1	30 unit(s)	box

ROTI®Aquatest Plate R2A

Ph.Eur., ready-to-use, sterile, for microbiology

For enumeration of heterotrophic bacteria.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.
9644.1	30 unit(s)	box

ROTI®Aquatest Plate YE

DEV, ISO 6222, ready-to-use, sterile, for microbiology

For enumeration of microorganisms in general, e.g. bacteria, moulds or yeast.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.
9642.1	30 unit(s)	box

ROTI®Aquatest Plate Sab4

Ph.Eur., ready-to-use, sterile, for microbiology

For cultivation of yeasts and fungi.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

Art. No.	Pack Qty.	Pack.
9643.1	30 unit(s)	box

ROTI®Aquatest Plate Cetr

Ph.Eur., ready-to-use, sterile, for microbiology

For isolation of *Pseudomonas aeruginosa*.

Expiration time on request.
Do NOT freeze!

Storage temperature: +4 to +15 °C
Transport temperature: cooled

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Warning H400

Art. No.	Pack Qty.	Pack.
9646.1	30 unit(s)	box



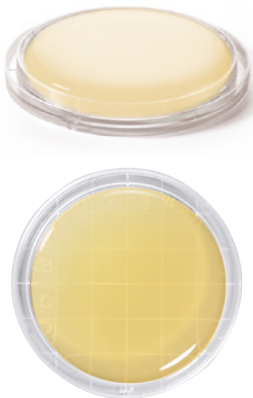
Testing of Liquids and Surfaces

Contact- and Swab Tests

In order to be able to determine the contamination of objects, persons or **surfaces** in general, **contact tests** or **swab tests** are carried out. For this purpose, curved agar plates are used, often with a grid to make it easier to count the colonies. Ready-made systems consisting of culture medium and swabs are available for swab tests. Depending on the culture medium, various microorganisms can be detected.



For surface testing by swabbing we recommend our **ROTI®ContiPlates** and **ROTI®DipSlides**. For swab tests, both the ROTITEST® systems and the Orion Clean Card® PRO system (amfora health care) can be used.



ROTI®ContiPlates

Sterile culture medium contact plates for the microbiological analysis of **surfaces**.

- **Diameter 60 mm**
- Surface 28 cm²
- Very easy to use
- Domed agar surface optimal for testing specimen surfaces
- Prepared with our proven dehydrated nutrient media mixtures
- Easy evaluation due to grid on the bottom of the panel
- Each plate can be obtained individually without contaminating the other plates
- With detailed instructions-for-use

Product name	General application	Art. No.	Pack Qty.
ROTI®ContiPlate MacCon	For detection of enterobacteria on surfaces.	2313.1	30 unit(s)
ROTI®ContiPlate PCA	For total germ count on surfaces.	9630.1	30 unit(s)
ROTI®ContiPlate RBC	For counting yeasts and moulds on surfaces.	9632.1	30 unit(s)
ROTI®ContiPlate Sab4plus	For selective detection of yeasts and pathogenic fungi on surfaces.	9633.1	30 unit(s)
ROTI®ContiPlate TSA	For total germ count on surfaces.	2312.1	30 unit(s)
ROTI®ContiPlate TSA-Letheen	For detection of microorganisms on disinfected surfaces.	9634.1	30 unit(s)
ROTI®ContiPlate VRB	For detection of coliforms on surfaces.	2314.1	30 unit(s)
ROTI®ContiPlate VRBD	For detection of enterobacteria on surfaces.	9631.1	30 unit(s)

For safety information and additional data, see our current catalogue or at www.carlroth.com



Testing of Liquids and Surfaces



neg. pos.

Swab Tests

Roth offers you a diverse programme for hygiene control, whose products are easy and quick to use even for non-professionals.

These user-friendly and quick tests include our **ROTITEST®** products. With the help of these, you can examine **surfaces** for bacteria, such as coliforms or listeria, but also protein residues after cleaning. You can thus easily detect contamination through clear colour changes.

Figure:
Colour shift to yellow-orange caused by presence of coliforms.
Gas formation hints to presence of *E. coli*.



Product name	General application	Art. No.	Pack Qty.
ROTITEST®Coliform	Detection system for exclusion, or affirmation, of contamination by coliforms.	4806.1	25 unit(s)
ROTITEST®Listeria	Detection system for exclusion, or affirmation, of contamination by listeriae.	4805.1	25 unit(s)
ROTITEST®Protein	Protein detection system for rapid control of surfaces after the cleaning process. Test result in max. 2 mins.	4803.1	20 unit(s)

For safety information and additional data, see our current catalogue or at www.carlroth.com



Orion Clean Card® PRO

Makes cleanliness visible
from amfora health care

The Clean Card® PRO of amfora health care detects any soiling that contains protein or substances similar to protein, such as allergen proteins as well as surfactants from residual cleaning detergent or disinfectant agent on work **surfaces, equipment and containers** that look clean to the naked eye. This means cleaning practices can be quickly optimised and risks can be minimised – as outlined in the HACCP concept.

- **Fast** – results in 30 seconds
- **Straightforward** – clear analysis thanks to visible colour change
- **User-friendly** – no additional devices required
- **Safety** and high standard confirmed in internal tests for compliance with legal requirements of HACCP, good hygiene practice or internal QA/hygiene plans
- **Evidence from approx. 50 µg protein/100 cm²**
- Certified and proven in practice: Recommended by Bundesverband der Lebensmittelkontrolleure (German Association of Food Regulators)
- Suitable for use in many sectors, e.g. community catering, restaurants and cafés, hotels, cleaning services, food industry businesses such as butchers and bakers, suppliers, haulage companies, for hygiene training courses to sensitise staff and for those working in hygiene, quality management and quality assurance, and much more.



Product name	General application	Art. No.	Pack Qty.
Clean Card® PRO Pack	For rapid detection of protein contamination on surfaces after the cleaning process.	0072.1	1 set
Clean Card® PRO Starter Kit	For rapid detection of protein contamination on surfaces after the cleaning process.	0071.1	1 kit

For safety information and additional data, see our current catalogue or at www.carlroth.com



Sampling and Transport

The production environment is one of the most important microbiological sources of contamination in a food processing or producing company. Environmental testing is therefore an important component for food and feed production.

Every meaningful microbiological analysis is based on **reliable, reproducible sampling**. For this purpose, we offer you both ready-made sampling systems with suitable culture medium and – for the greatest possible flexibility – dry sampling vessels for all occasions.



Sample scoops DispoDipper S

Bürkle. Material: PP, transparent. **Sterile**.

For taking samples from barrels, canisters and other containers. Scaled beaker can be closed liquid-tight after the sample has been taken. Removable handle.

Particularly suitable for the food, animal feed and pharmaceutical industries.

- Colour blue
- Compliant with the EU food regulations and FDA regulations
- Manufactured in a cleanroom (Class 7), individually packed

Technical specifications:

Art. No.	HXH1.1	1AHT.1	1AHH.1
Height with lid	98 mm	98 mm	116 mm
Outer beaker Ø	40 mm	53 mm	72 mm
Suitable for	Opening Ø 52 mm (2" barrel openings)	Opening Ø 65 mm	Opening Ø 85 mm

Sterility	Volume (ml)	Length (mm)	Immersion depth (mm)	Art. No.	Pack Qty.
Sterile	50	417	270	HXH1.1	20 unit(s)
Sterile	100	415	270	1AHT.1	20 unit(s)
Sterile	250	429	270	1AHH.1	20 unit(s)

Sample scoops with handle S

ROTH SELECTION. Material: PP, PE. **Sterile**.

For collecting sterilised samples and performing subsequent analysis, reduces cross-contamination. Beaker made of shock-proof, transparent PP. Screw cap made of PE. Removable handle, 240 mm length. Colour blue. Suitable for use with foodstuffs.

Technical specifications:

Art. No.	HL41.1	HL42.1	HL43.1
Height with lid	70 mm	74 mm	102 mm
Outer beaker Ø	30 mm	52 mm	

Sterility	Volume (ml)	Length (mm)	Art. No.	Pack Qty.
Sterile	40	275	HL41.1	250 unit(s)
Sterile	125	275	HL42.1	100 unit(s)
Sterile	180	305	HL43.1	100 unit(s)

Sampling

SurfACE™ NEW/+

from Romer Labs.

Sampling Solutions with dry and moistened cellulose sponges

Easy-to-use, sterile specimen collection and **surface sampling** kits for quality control and identification of hazards at critical control points.

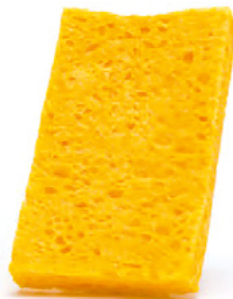
Dry or moistened, sterile cellulose sponges are convenient, ready-to-use tools for sampling. SurfACE™ products can eliminate time-consuming and costly preparation steps. They are designed so that samples can be taken directly from surfaces in food processing plants. The sponges are gamma-irradiated to ensure sterility.

The use of different moistening buffers allows different applications of these environmental and product sampling systems. In addition to sampling sponges, you will also find wipes and sponge sticks in our range.



Available moistening buffers:

Buffer	Application
BPW (Buffered Peptone Water)	pre-enrichment medium
	for isolating bacteria and pathogens from foods
	facilitate resuscitation of stressed cells
DE (Dey-Engley neutralizing broth)	assists in the recovery of microorganisms
	neutralizes the bactericidal and bacteriostatic effects of sanitizing agents
	contains nutritive agents that aid in recovering and promoting the growth of microorganisms
LB (Lethen Broth)	Bromocresol purple as a colorimetric indicator
	highly nutritional medium that contains lecithin and Tween 80
	for testing the efficacy of sanitizing protocols
NB (Neutralizing Buffer)	as lecithin neutralizes quaternary ammonium compounds
	Tween 80 neutralizes phenols, hexachlorophene and formalin
	eliminates the effect of chlorine and quaternary ammonium compounds
NB (Neutralizing Buffer)	buffer assists in the recovery of microorganisms in samples taken from surfaces exposed to sanitizing agents
	different color from DE neutralizing broth



ready-to-use S

Sponges SurfACE™ LB (vial)

ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 2

Type	Art. No.	Pack Qty.
Sponge SurfACE™LB (vial)	1EAH.1	98 unit(s)



Sampling

Sampling sponges SurfACE™

NEW / +

ready-to-use

S

For environmental surfaces to collect and ship microbial samples.

All the advantages at a glance:

- 3" x 1.5" (7.5 x 3.5 cm) biocide-free cellulose sponge
- Available dry or pre-moistened with 10 ml buffer
- In Twirl-Tie™ bag or vial
- Bags can be opened easily with attached pull tabs
- Label area for sample identification
- Irradiated for proven sterility



Directions for use

The Romer Labs Sponge is a 3" x 1.5" (7.5 cm x 3.5 cm) cellulose sponge pre-moistened with 10 ml buffer of choice and individually packaged in a vapor-barrier foil pouch.

Sponges SurfACE™ BPW

ISO 18593

Romer Labs.

For the detection of bacteria and especially pathogens.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Sponge SurfACE™ BPW	1EAT.1	100 unit(s)

Sponges SurfACE™ LB

ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 2

Type	Art. No.	Pack Qty.
Sponge SurfACE™ LB	1EC1.1	100 unit(s)

Sponges SurfACE™ DE

ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Sponge SurfACE™ DE	1EC3.1	100 unit(s)

Sponges SurfACE™ NB

ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Sponge SurfACE™ NB	1EC0.1	100 unit(s)

Sponges SurfACE™ dry

ISO 18593

Romer Labs.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

Type	Art. No.	Pack Qty.
Sponge SurfACE™ dry	1EAN.1	250 unit(s)

Sampling

SurfACE™ Sponge-Sticks

NEW/+

ready-to-use

S

For environmental surfaces to collect and ship microbial samples.

All the advantages at a glance:

- 3" x 1.5" (7.5 x 3.5 cm) biocide-free cellulose sponge
- Unique, quick sponge-release handle for fast and convenient sponge release
- Thumb stop in-handle included to avoid accidental sponge contact
- No gloves needed for different sampling sites
- Perfectly suited to sample in gaps, drains and pipes
- Dry or pre-moistened with 10 ml buffer
- Bags can be opened easily with attached pull tabs
- Label area for sample identification
- Irradiated for proven sterility



Directions for use

The Romer Labs Sponge-Stick is a 3" x 1.5" (7.5 cm x 3.5 cm) compressed cellulose sponge attached to a quick-release handle, pre-moistened with 10 ml buffer of choice and individually packaged in a sampling bag (Twirl-Tie™). The quick-release handle provides an extra level of convenience and reliability. It is designed to release the sponge into the sample bag after sample collection, allowing only the sponge to be returned to the laboratory. Unnecessary parts that could interfere with sample processing are therefore eliminated.

Sponge-Stick SurfACE™ LB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 2

Type	Art. No.	Pack Qty.
Sponge-Stick SurfACE™ LB	1EAP.1	75 unit(s)

Sponge-Stick SurfACE™ DE

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Sponge-Stick SurfACE™ DE	1EAY.1	75 unit(s)

Sponge-Stick SurfACE™ BPW

SurfACE™ ISO 18593

Romer Labs.

For the detection of bacteria and especially pathogens.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Sponge-Stick SurfACE™ BPW	1EAK.1	75 unit(s)

Sponge-Stick SurfACE™ NB

SurfACE™ ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Application

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Sponge-Stick SurfACE™ NB	1EAE.1	75 unit(s)

Sponge-Stick SurfACE™ dry

SurfACE™ ISO 18593

Romer Labs.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

Type	Art. No.	Pack Qty.
Sponge-Stick SurfACE™ dry	1EAL.1	75 unit(s)



Sampling

SurfACE™ Fabric Swabs

NEW/+ ready-to-use **S**



For environmental surfaces to collect and ship microbial samples.

All the advantages at a glance:

- 28 x 32 cm blue biocide-free fabric swab (swab cloth)
- Pre-moistened with 10 ml buffer
- In 55 oz.; 7.5 x 12" (19 x 30 cm) Twirl-Tie™ bag
- Bags can be opened easily with attached pull-tabs
- Label area for sample identification
- Irradiated for proven sterility

Directions for use

Romer Labs fabric swabs, also known as swab cloths, are pre-moistened with 10 ml buffer. The cloth is a blue, biocide-free, non-woven, wood-pulp/polyester fabric, measuring at 28 x 32 cm, folded twice and placed in a 55 oz., 7.5 x 12" (19 x 30 cm) Twirl-Tie™ bag. Bags can be opened easily with the attached pull-tabs and include a label area for sample identification. Like all microbial sampling products, they are irradiated for proven sterility.

Fabric swabs SurfACE™ NB

ISO 18593

Romer Labs.

For surfaces after treatment with disinfectants or preservatives.

Storage temperature: +4 to +15 °C

Transport temperature: ambient temp.

WGK 1

Type	Art. No.	Pack Qty.
Fabric swab SurfACE™ NB	1EC2.1	200 unit(s)

Nasco Sampling Sponge

S ❄️ ❄️ ❄️



Liquid sample bags with sponge

Nasco. Material: LDPE. **Sterile.**

Speci-Sponge® for sampling of laboratory benches, furniture, devices and other areas where testing for pathogens such as listeria, salmonella and *E. coli* is required. The sponge is sterile and not growth-inhibiting. After the sample has been collected, return the sponge to the bag. Add medium and, if necessary, incubate directly in the bag.

- With wire ties and large labelling area
- Sponge dimensions when wet: L 76 x W 38 x H 16 mm

Volume (ml)	Width (mm)	Height (mm)	Art. No.	Pack Qty.
540	115	230	T263.2	100 unit(s)
1,650	190	300	T265.2	100 unit(s)

CompactDry™ Swab

ready-to-use **S**



sterile, for microbiology

NISSUI Pharmaceutical.

All-in-one set of swab and nutrient broth for microbiological sampling of surfaces.

Sterile all-in-one system for sampling in the microbiological field of work. Suitable for analysis of foods and feeds, in pharmaceutical areas, as well as for hygiene monitoring, and for exclusion of contaminations.

Compact Dry Swabs made by NISSUI are particularly easy to apply, and may also be used by laymen. In order to test a surface, the respective area is wiped with the sterile cotton swab. After returning the swab into the tube, the germs are released into the nutrient broth by agitation. The amount of 1 ml medium has been optimised for inoculation of nutrient agar plates in general, also making this swab most compatible with Compact Dry plates.

Contains 1 ml **Peptone Water, buffered**

Storage temperature: +15 to +25 °C

Transport temperature: ambient temp.

WGK 1

Art. No.	Pack Qty.	Pack.
4809.1	40 unit(s)	box
4809.2	240 unit(s)	box

Sample Shipment / Sample Transport

Shipping and Transport

Mailing bags docuCARE® med **NEW/+**

ROTH SELECTION. Material: LDPE.

Liquid-tight sample bags for safe and secure transport of medical samples, laboratory samples or cytostatic agents. Blue security seal with hidden "ILLEGAL ENTRY" lettering in multiple languages (certified by "ISEGA"), width 45 mm. Straightforward handling thanks to tamper-proof self-adhesive seal. Suitable as secondary packaging for transporting biological substances of Category B (UN 3373) according to ADR and packaging instruction P650.

- Liquid-tight (confirmed by BAM)
- Highly tearproof film, recyclable, transparent
- Durable duplex seam, with microprint
- Printed with the UN 3373 number / Biological materials, category B
- Serial numbering and barcodes

Suitable absorbent nonwoven sheet for use as an absorption material available as an option.



Version	Outer width (mm)	Outer height (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.
A4 format	225	360	215	350	1C80.1	500 unit(s)
A5 format	165	265	155	255	1C7Y.1	500 unit(s)

Accessories absorbent non-woven sheet for mailing bags **NEW/+**

ROTH SELECTION. Material: Cellulose, Superabsorbent polymer.

Nonwoven sheet inserts for use as an absorption material in mailing bags. Surface weight 345 g/m².



Width (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.
120	180	4 x 250	1C81.1	1,000 unit(s)

Safety containers DuraPorter™ **A 121°C**

ROTH SELECTION. Material: PC, Silicone seal. Autoclavable: Yes.

Ideal for in-house transportation of biological and chemical samples, instruments or for storage. Transparent box with hinged lid, three snap locks and carry handle, stackable. Partitions for smaller samples can be removed to make use of the entire interior. Lid can be fully opened for easy filling and cleaning.



L x W x H, external (mm)	Colour	Art. No.	Pack Qty.
380 x 196 x 160	translucent	AAA0.1	1 unit(s)
380 x 196 x 160	red	AAA1.1	1 unit(s)
380 x 196 x 160	yellow	AAA2.1	1 unit(s)



Anhydrous Nutrient Media

Anhydrous Nutrient Media acc. to Ph. Eur. and TrinkwV

For those of our customers who have to comply with legal guidelines in the field of hygiene control, Carl Roth offers an extensive range of dry culture media in accordance with **Ph. Eur.** and the (European) Drinking Water Ordinance (**TrinkwV 2001**).

To ensure the safe visualisation of organisms over a longer period of time, the formulation of many media also complies with the specifications of the former **DEV**.

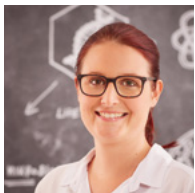
In our assortment you will also find all relevant culture media according to:

- **EN ISO 16266-2:2008** (detection and enumeration of *Pseudomonas aeruginosa*),
- **EN ISO 6222:1999** (quantitative determination of culturable microorganisms),
- **ISO 7899-2:2000** (detection and enumeration of intestinal enterococci),
- **EN ISO 9308-1:2000** (enumeration of *Escherichia coli* and coliform bacteria)
- **EN ISO 7937:2004** (Horizontal method for counting *Clostridium perfringens*).



Figure:
(1) *Escherichia coli* (turbidity and gas formation (arrow))
(2) *Enterobacter aerogenes* (turbidity)
(3) Uninoculated broth

Are you looking for a special culture medium? Contact us:



Ms. Dr. Hübner

+49 721 5606-513 | lifescience@carlroth.de



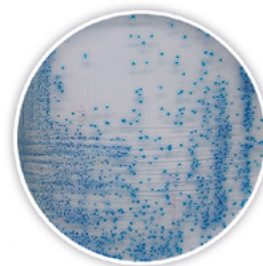
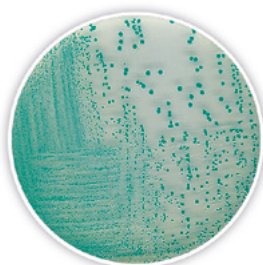
Product name	Purity	Art. No.	Pack Qty.
Bile Esculin Azide Agar	DEV, ISO 7899-2:2000, for microbiology	CP62.1	500 g
Brilliant Green Bile Broth	ISO 4831, ISO 4832, ISO 11133, for microbiology	CL06.1	500 g
CASO Agar, granulated	Ph.Eur., granulated, for microbiology	1506.1	500 g
CASO Broth, granulated	Ph.Eur., granulated, for microbiology	6678.1	500 g
Coliforms chromogenic Agar (ISO)	ISO 9308-1, ISO 11133, for microbiology	8849.1	500 g
EC Broth	ISO 7251, ISO 11133, for microbiology	8310.1	500 g
Gelatin Agar (DEV)	DEV, for microbiology	HP07.1	500 g
King's B Medium (Base)	DEV, EN ISO 16266:2008, for microbiology	CP64.1	500 g
Lactose Broth (DEV)	for microbiology	CL76.1	500 g
Lactose Peptone Broth (DEV)	for microbiology	CL77.1	500 g
Legionella Agar (Base)	ISO 11133, EN ISO 11731-2, for microbiology	CL48.1	500 g
MacConkey Agar	Ph.Eur., EN ISO 21567, for microbiology	X922.1	500 g
MacConkey Agar, granulated	Ph.Eur., granulated, for microbiology	1514.1	500 g
MacConkey Broth	Ph.Eur., for microbiology	AE47.1	500 g
Mossel EE Broth	Ph.Eur., for microbiology	AE65.1	500 g
Nutrient Agar (DEV/ISO)	DEV, EN ISO 16266:2008, for microbiology	CP66.1	500 g
Nutrient Agar (DEV)	DEV, DIN 38 411, for microbiology	CL02.1	500 g
<i>Pseudomonas</i> Selective Agar (Base)	DEV, ISO 11133, EN ISO 16266:2008, for microbiology	CP67.1	500 g
R2A-Agar	Ph.Eur., for microbiology	CL01.1	500 g
R2A-Agar, granulated	Ph.Eur., granulated, for microbiology	1523.1	500 g
Rappaport Vassiliadis Broth	Ph.Eur., for microbiology	CL03.1	500 g
Reinforced Clostridial Medium	Ph.Eur., for microbiology	AE66.1	500 g
Standard Count Agar	for microbiology	AE91.1	500 g
Tryptone Bile Salts Agar	DEV, for microbiology	CP69.1	500 g
Tryptone Soy Agar	DEV, EN ISO 9308-1:2000, for microbiology	CP70.1	500 g
Tryptophane Culture Broth	DEV, ISO 16654, for microbiology	CP71.1	500 g
TSC Agar (Base)	DEV, EN ISO 7937:2004, ISO 11133, ISO 14189, for microbiology	CL51.1	500 g
TTC Chapman Agar (with sodium heptadecylsulphate) (Base)	DEV, for microbiology	CP65.1	500 g
Violet Red Bile Agar with Glucose	Ph.Eur., ISO 11133, ISO 21528, for microbiology	X939.1	500 g
Violet Red Bile Agar with Glucose, granulated	Ph.Eur., granulated, for microbiology	1525.1	500 g
Yeast Extract Agar	DEV, EN ISO 6222, ISO 11133, for microbiology	CP63.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find further package sizes at www.carlroth.com

Anhydrous Nutrient Media

Anhydrous Nutrient Media for Food Control



Food contaminated by bacteria, viruses or other microorganisms is primarily a health risk for the consumer. Therefore, **checking food** for microorganisms is an important part of quality control. These microorganisms can be found ubiquitously, including on food and the people on the production team. Due to carelessness or unfortunate circumstances, contamination can spread in produced food during processing. Only careful quality control in combination with consistent **hygiene monitoring** protects consumers and producers.

For microbial testing of **food samples**, Carl Roth offers you a comprehensive range of high-quality dry culture media with proven formulations.

Note: Test our chromogenic culture media for fast and direct isolation of microorganisms.



Product name	General application	Art. No.	Pack Qty.
Bengal Red Agar (with chloroamphenicol)	Standard-selective agar for counting yeast and food mould fungi.	AE24.1	500 g
Brilliant Green Lactose Sucrose Agar	Highly selective medium for the isolation of <i>Salmonellae</i> from pathological specimens and food.	AE43.1	500 g
Brilliant Green Tetrathionate Bile Broth	For selective enrichment of <i>Salmonellae</i> in food and faeces.	AE42.1	500 g
Bruceella Agar	For cultivation of <i>Bruceella</i> and other fastidious microorganisms in foods and other specimens.	5752.1	500 g
Campylobacter Agar, blood-free (Base)	For isolation of <i>Campylobacter jejuni</i> , <i>Campylobacter coli</i> , and <i>Campylobacter lariidis</i> in foods, and other samples.	5756.1	500 g
Coliforms chromogenic Agar	For selective enrichment and simultaneous detection of <i>E. coli</i> and other Coliforms in water and food samples.	CL45.1	525 g
Dichlorane Bengal Red Agar (with chloroamphenicol)	Selective agar for enumeration of yeast and food mould fungi, especially for strongly hyphen-forming fungi.	AE25.1	500 g
Dichlorane Glycerol Agar (Base)	Selective agar for enumeration of yeast and food mould fungi, especially in half-dry and dry food.	AE26.1	500 g
Differential Reinforced Clostridial Medium	For enrichment and enumeration of clostridia in foods and other samples.	CL78.1	500 g
Fraser Broth (Base)	Enrichment medium for detection and isolation of <i>Listeria</i> in foods and environmental samples.	HP17.1	500 g
Fraser Half Broth (Base)	Enrichment medium for detection and isolation of <i>Listeria</i> in foods and environmental samples.	HP18.1	500 g
MRS Agar pH 5.7	For cultivation of pH sensitive lactobacilli from foods and feeding stuff. According to deMan, Rogosa and Sharpe.	HP65.1	500 g
MRS Broth pH 5.7	For cultivation of pH sensitive lactobacilli from foods and feeding stuff. According to deMan, Rogosa and Sharpe.	HP64.1	500 g
Mueller Kauffmann Broth (Base)	For selective enrichment of <i>Salmonella</i> from meat and other foods.	8323.1	500 g
Rappaport Vassiliadis Broth	For selective enrichment of <i>Salmonellae</i> in foods, water- and other samples.	CL03.1	500 g
Reinforced Clostridial Medium	For enrichment and enumeration of <i>Clostridia</i> and other anaerobes from foods and other specimens.	AE66.1	500 g
Salmonella chromogenic Agar	For isolation of <i>Salmonella</i> from foods, waters and other samples.	CL46.1	500 g
TBX chromogenic Agar	Selective agar for detection of <i>E.coli</i> in food samples.	CL47.2 CL47.1	100 g 500 g
TSC Agar (Base)	For detection and enumeration of <i>Clostridium perfringens</i> in foods and animal feed.	CL51.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find further package sizes at www.carlroth.com



Anhydrous Nutrient Media

Anhydrous Nutrient Media for TC and Yeasts/Moulds



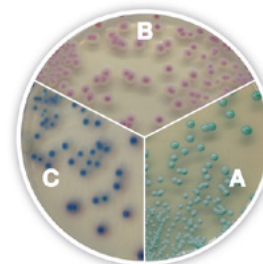
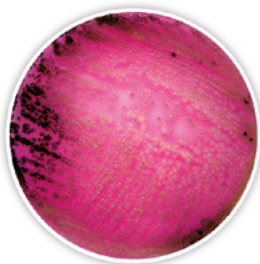
In order to obtain an estimate of the overall microbial burden in the course of hygiene control, the **total plate count** should be determined. The total microbial count includes all living (colony-forming) microorganisms in a defined amount of sample material. No specific differentiation of microorganisms is made here.

Dry culture media for the detection of total microorganisms are **universal media** without selectivity that ensure the growth of all microorganisms.

Product name	General application	Art. No.	Pack Qty.
CASO Agar	For isolation and cultivation of non-fastidious organisms.	X937.1	500 g
CASO Broth	For cultivation of fastidious and non-fastidious microorganisms.	X938.1	500 g
Plate Count Agar	For enumeration of the aerobic microbial flora in milk, foods and other material.	X930.1	500 g
Plate Count Agar with Powdered Milk	For enumeration of microorganisms in milk and dairy derivatives.	HP08.1	500 g
Standard Count Agar	For enumeration of aerobic bacteria in milk, water and wastewaters.	AE91.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find **further package sizes** at www.carlroth.com



Yeasts and moulds are among the most common food pathogens that cause spoilage. Under certain circumstances, their presence can be harmful to health or even carcinogenic. Therefore, the infestation of food by yeasts and moulds is of great importance. But they do not only occur in food - depending on the condition, contamination by yeasts and moulds can also occur on surfaces, old objects or in water.

The following range of dry culture media helps you to reliably detect and determine these microorganisms.

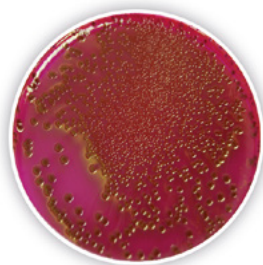
Product name	General application	Art. No.	Pack Qty.
Bengal Red Agar (with chloroamphenicol)	Standard-selective agar for counting yeast and food mould fungi.	AE24.1	500 g
Candida chromogenic Agar	Selective medium for isolation and quick identification of pathogenic <i>Candida</i> species.	2922.1	500 g
Dichlorane Bengal Red Agar (with chloroamphenicol)	Selective agar for enumeration of yeast and food mould fungi, especially for strongly hyphen-forming fungi.	AE25.1	500 g
Dichlorane Glycerol Agar (Base)	Selective agar for enumeration of yeast and food mould fungi, especially in half-dry and dry food.	AE26.1	500 g
Wort Agar (Base)	For cultivation and enumeration of yeasts.	CL04.1	500 g
Wort Broth	For cultivation and enumeration of fungi, particularly of yeast.	5779.1	500 g
Yeast Glucose Agar (with chloroamphenicol)	Selective medium for enumeration of yeasts and mould in milk and dairy products.	CL00.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find **further package sizes** at www.carlroth.com

Anhydrous Nutrient Media

Anhydrous Nutrient Media for Coliforms/Enterobacteria



The most common and frequently pathogenic microorganisms include *E. coli* and **coliform bacteria**. Since these bacteria are found almost everywhere, they are called indicator bacteria. They serve as a representative for other pathogens in many detection methods.

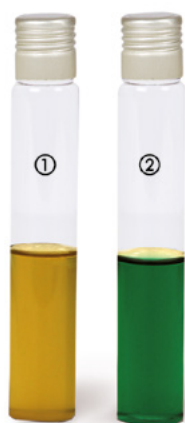
In our assortment you will find a large selection of dry culture media to determine these **indicator bacteria** in your samples.

Figure:
Escherichia coli grows red colonies accompanied by red staining of the surrounding medium (sodium sulphite/fuchsin reaction).

Product name	General application	Art. No.	Pack Qty.
Brilliant Green Bile Broth	For selective enrichment and enumeration of coli bacteria in milk, water samples, faeces and other material.	CL06.1	500 g
Coli Fluoro Broth	Enrichment medium for the simultaneous and easy detection of total Coliforms and <i>E. coli</i> in water, foods and dairy products.	2923.1	500 g
Coliforms chromogenic Agar	For selective enrichment and simultaneous detection of <i>E. coli</i> and other Coliforms in water and food samples.	CL45.1	525 g
Endo Agar (Base)	For isolation of enteric gram-negative bacteria, especially coliforms, from water, dairy products and food.	X920.1	500 g
MacConkey Broth	For detection of coliform bacteria in water, milk and other liquids.	AE47.1	500 g
TBX chromogenic Agar	Selective agar for detection of <i>E. coli</i> in food samples.	CL47.1	500 g
Tryptone Bile Salts Agar	For detection and enumeration of <i>E. coli</i> in foods and water samples.	CP69.1	500 g
Tryptone Soy Agar	For the detection and enumeration of <i>E. coli</i> and other coliform bacteria in foods and water samples.	CP70.1	500 g
Tryptophane Culture Broth	For the detection of <i>E. coli</i> in foods and water samples by indole production.	CP71.1	500 g
Violet Red Bile Agar with Lactose	For detection and enumeration of coliforms in milk, foods and other materials.	X940.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find **further container sizes** at www.carlroth.com



Enterobacteria are gram-negative bacteria that are widespread in nature.

Although many of these bacteria are part of the natural intestinal flora, they can cause severe infections when immunity is weakened. Like *E. coli* and coliform bacteria, enterobacteria are **indicator bacteria** in hygiene control.

Figure:
(1) Enterobacteria (here: *E. coli*), indicated by colour yellow caused by pH-shift.
(2) Uninoculated broth.

Product name	General application	Art. No.	Pack Qty.
MacConkey Agar	For selective isolation and identification of enterobacteria from waste water, foods and other samples.	X922.1	500 g
Mossel EE Broth	For selective enrichment of enterobacteria in foods, particularly <i>Salmonella</i> and Coliforms.	AE65.1	500 g
Salmonella-Shigella Agar	For isolation of pathogenic enterobacteria, especially <i>Salmonella</i> and <i>Shigella</i> .	X934.1	500 g
Violet Red Bile Agar with Dextrose and Lactose	For detection and enumeration of enterobacteria.	AE45.1	500 g
Violet Red Bile Agar with Glucose	For cultivation and enumeration of enterobacteria in water, foods and other materials.	X939.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find **further package sizes** at www.carlroth.com

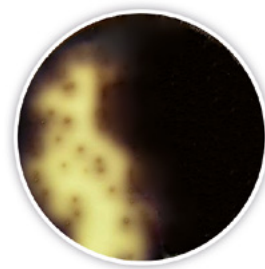
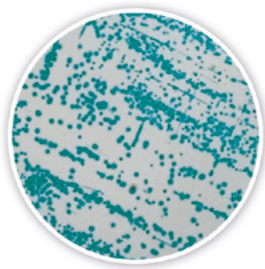


Anhydrous Nutrient Media

Anhydrous Nutrient Media for Detection of Pathogen Microorganisms

The ultimate goal of hygiene control is to reduce the health risk for consumers, customers and patients. Almost every object and almost every solution – food, water or any other sample – can be contaminated by microorganisms. If these are **pathogens**, there is a major health risk for everyone involved, up to and including the consumer. Prominent examples in the past have been outbreaks of **listeria** or **salmonella**.

To efficiently minimise this risk for your customers, for the consumers and for your production company, Carl Roth offers dry culture media for the reliable detection of **pathogenic microorganisms**.



Product name	General application	Art. No.	Pack Qty.
Campylobacter Agar, blood-free (Base)	For isolation of <i>Campylobacter jejuni</i> , <i>Campylobacter coli</i> , and <i>Campylobacter lariidis</i> in foods, and other samples.	5756.1	500 g
Campylobacter Selective Agar (Base)	For isolation of <i>Campylobacter coli</i> and <i>C. jejuni</i> .	8847.1	500 g
Lactose Broth	For detection and enumeration of coliform bacteria and for enrichment of <i>Salmonellae</i> .	X921.1	500 g
Lactose Sulphite Broth (Base)	For selective detection and enumeration of <i>C. perfringens</i> .	AE46.1	500 g
Listeria chromogenic Agar (Base)	Selective medium for detection and enumeration of <i>Listeria monocytogenes</i> acc. to Ottaviani and Agosti.	3008.2	500 g
Mannitol Salt Agar	For isolation of pathogenic <i>Staphylococci</i> .	CL81.1	500 g
MRS Agar	For cultivation of lactobacilli. According to deMan, Rogosa and Sharpe.	X924.1	500 g
MRS Broth	For cultivation of lactobacilli. According to deMan, Rogosa and Sharpe.	X925.1	500 g
Orange Serum Agar	For isolation, detection and counting of acid-tolerant pathogenic and non-pathogenic germs in fruit juices and fruit juice concentrate, especially from citrus fruits.	HP09.1	500 g
Orange Serum Agar, granulated	For isolation, detection and enumeration of acid-tolerant pathogens in fruit juices and fruit juice concentrates, particularly citrus products.	1520.1	500 g
Oxford Listeria Agar (Base)	Selective medium for detection of <i>Listeria monocytogenes</i> .	5767.1	500 g
Palcam Listeria Agar (Base)	Differential medium for detection of <i>Listeria ssp.</i> , particularly <i>L. monocytogenes</i> .	5768.1	500 g
Rogosa Agar	For selective cultivation of lactobacilli.	8329.1	500 g
Universal Beer Agar (Base)	For cultivation of beer spoiling microorganisms.	8337.1	500 g
XLD-Agar	For isolation of enteropathogenic bacteria, especially from the genera <i>Shigella</i> and <i>Salmonella</i> .	X941.1	500 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

► You will find further package sizes at www.carlroth.com

Culture Vials



Culture tubes **A** 121 °C

ROTH SELECTION. Material: Soda-lime glass, AR-GLAS®.
Autoclavable: Yes.

Delivery without Screw closures, please order separately

Version	Volume (ml)	Ø External (mm)	Length (mm)	Art. No.	Pack Qty.
Round base	15	16	125	EXE8.1	100 unit(s)
flat bottom	15	16	125	EXE9.1	100 unit(s)

Accessories

Screw closures for culture tubes **A** 121 °C

ROTH SELECTION. Material: PP, integrated TPE seal.
Autoclavable: Yes.

- Extended closures, reduced risk of contamination
- Short screw thread for easy opening and closing
- Highest safety for sterilisation through injected seal
- Leak-proof
- Temperature stability: -10 to +121 °C

Ø External (mm)	Height (mm)	Art. No.	Pack Qty.
20	30	EXH0.1	100 unit(s)



Culture tubes Polypropylene

Material: PP, PE closure. **Sterile.**

- With two-position closure for anaerobic and aerobic bacteria cultures
- Suitable for use in a centrifuge: 3000 x g
- Temperature stable: -190 to 121 °C

Graduated

With labelling area.

- Available in space-saving box or economy-priced bag

Volume (ml)	Ø External (mm)	Length (mm)	Pack.	Art. No.	Pack Qty.
5	12	75	individually	EC01.1	500 unit(s)
5	12	75	20 x 25 (box)	EC02.1	500 unit(s)
14	17	95	individually	EC03.1	500 unit(s)
14	17	95	20 x 25 (box)	EC04.1	500 unit(s)

Culture flask sterile **S**

Nalgene. Material: PETG, HDPE screw closure, with aeration filter (PTFE membrane, pore size 0.2 µm). **Sterile.**

Suitable for agitation and suspension cultures, for making culture media or storage. The aeration filter enables sterile aeration and reduces the risk of contamination.

- With graduations
- non-pyrogenic, non-cytotoxic
- individually packed



Volume (ml)	Art. No.	Pack Qty.
125	PX73.1	24 unit(s)
250	PX74.1	12 unit(s)
500	PX75.1	12 unit(s)
1,000	PX76.1	6 unit(s)
2,000	PX77.1	4 unit(s)



Petri Dishes and Accessories



Contact dishes S

Greiner Bio-One. Material: PS. **Sterile.**

To detect contamination and/or check the effectiveness of cleaning and disinfection on flat surfaces using contact cultures.

- Optimised dish design produces a meniscus on the surface of the agar when the contact dish is filled
- Graduated and divided into 10 mm squares to allow quick and easy analysis

With vents

For an enhanced gas exchange.

Volume (ml)	Ø x H (mm)	Pack.	Art. No.	Pack Qty.
12.5	65 x 12.5	30 x 20	PX85.1	600 unit(s)



Petri dishes S

ROTH SELECTION. Material: PS. **Sterile.**

- Flat surfaces for reproducible agar filling levels
- Temperature stable up to 55 °C
- Versatile: has a wide range of uses in microbiology and bacteriology
- Gamma-sterilised

With vents

Slightly raised lid, for optimum gas exchange.

Ø x H (mm)	Pack.	Art. No.	Pack Qty.
55 x 15	108 x 15	N223.2	1,620 unit(s)
90 x 14	25 x 33	N221.2	825 unit(s)



Petri dishes S

Greiner Bio-One. Material: PS. **Steril.**

- Flat stacking surfaces ensure high dimensional stability
- Versatile: has a wide range of uses in microbiology and bacteriology
- Ideal for microscopy

With vents

Slightly raised lid, for optimum gas exchange.

Ø x H (mm)	Pack.	Art. No.	Pack Qty.
35 x 10	74 x 10	XH88.1	740 unit(s)
60 x 15	30 x 20	XH89.1	600 unit(s)
90 x 16	24 x 20	ALA5.1	480 unit(s)
145 x 20	8 x 15	XH90.1	120 unit(s)



Bacterial cell spreaders Delta™ S

ROTH SELECTION. Material: ABS. **Sterile.**

With smooth surface, prevents scratching for agrar surfaces. Delta-shaped head distributes the contact pressure evenly for a smooth application. Individually packed.

Total length (mm)	Width (mm)	Ø (mm)	Art. No.	Pack Qty.
172	37	4	PC59.1	500 unit(s)

Petri Dishes and Accessories



Bacterial cell spreaders L-shaped S

ROTH SELECTION. Material: ABS. **Sterile.**

With smooth surface, prevents scratching for agrar surfaces.

Total length (mm)	Width (mm)	Ø (mm)	Pack.	Art. No.	Pack Qty.
146	38	4	individually	PC57.1	500 unit(s)
146	38	4	50 x 10	PC58.1	500 unit(s)

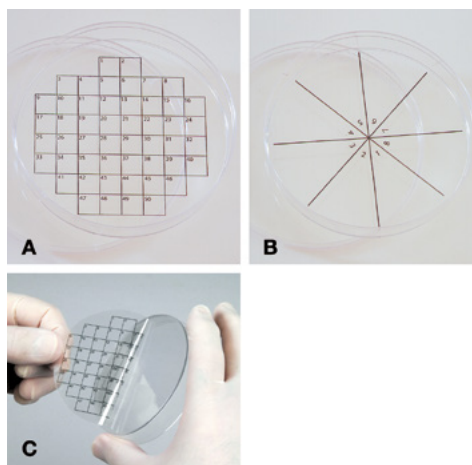


Inoculation loop sterile S

ROTH SELECTION. Material: PS. **Sterile.**

The inoculation loops are smooth and flexible, enabling inoculation in clear streaks. Needles allow colony picking and stab inoculation in all types of culture media.

Version	Colour	Length (mm)	Pack.	Art. No.	Pack Qty.
1 µl	blue	227	40 x 25	EA89.1	1,000 unit(s)
10 µl	yellow	227	40 x 25	EA91.1	1,000 unit(s)
Needle	white	227	40 x 25	EA93.1	1,000 unit(s)
1 µl	blue	227	100 x 10	EA88.1	1,000 unit(s)
10 µl	yellow	227	100 x 10	EA90.1	1,000 unit(s)
Needle	white	227	100 x 10	EA92.1	1,000 unit(s)
1 µl	blue	227	individual	AEL0.1	250 unit(s)
10 µl	yellow	227	individual	AEL1.1	250 unit(s)
Needle	white	227	individual	AEL2.1	250 unit(s)



PetriSticker™

Pre-cut circular self-adhesive foils for easy and accurate labelling of 90 mm agar plates. With well legible numbers and partitions designed in two layouts and many variants. The foil is simply fixed to the bottom outside of an agar plate and the labelling is legible from the top.

PetriSticker™ Square grid

Technical specifications:

Art. No.	AE87.1	AE88.1	AE89.1	AE90.1
Type	32 arrays	50 arrays	70 arrays	100 arrays
Number of fields	32	50	70	100
Dimensions of individual field	12 x 12 mm	8,5 x 8,5 mm	7 x 7 mm	6 x 6 mm
Area of individual field	1.44 cm ²	0.72 cm ²	0.49 cm ²	0.36 cm ²
Suitable for	Standard Petri dishes with Ø 90 mm			

Type	Number of fields	Dimensions of individual field (mm)	Area of individual field (cm ²)	Art. No.	Pack Qty.
32 arrays	32	12 x 12	1.44	AE87.1	36 unit(s)
50 arrays	50	8,5 x 8,5	0.72	AE88.1	36 unit(s)
70 arrays	70	7 x 7	0.49	AE89.1	36 unit(s)
100 arrays	100	6 x 6	0.36	AE90.1	36 unit(s)

PetriSticker™ Pie cut

Technical specifications:

Art. No.	AE95.1	AE96.1	AE97.1	AE98.1
Type	6 arrays	8 arrays	12 arrays	16 arrays
Number of fields	6	8	12	16
Suitable for	Standard Petri dishes with Ø 90 mm			

Type	Number of fields	Art. No.	Pack Qty.
6 arrays	6	AE95.1	36 unit(s)
8 arrays	8	AE96.1	36 unit(s)
12 arrays	12	AE97.1	36 unit(s)
16 arrays	16	AE98.1	36 unit(s)



Petri Dishes and Accessories



Colony counter SC6 PLUS

Stuart.

For fast and exact counting of bacterial colonies in Petri dishes.

- Counting is initiated by pressing down on the Petri dish with any pen
- Pressure sensitivity is individually adjustable
- Confirmation of count by audible signal (optional)
- With average counter, max. 99 Petri dishes can be analysed
- Three-digit LED display (0–999)
- Anti-glare LED lighting
- Optional light or dark background (dark background aids counting translucent colonies)
- Can be connected to a PC
- Antimicrobial BioCote® surface coating

Technical specifications:

Art. No.	EN38.1
Operating temperature	+5 to +40 °C
L x W x H	300 x 310 x 140 mm
Weight	1,5 kg
Mains connection	230 V, 50 Hz

Delivery incl. 2 Wolffhügel grids and 2 reducer rings (centring aids) for Petri dishes with Ø 50–90 mm, USB cable (1 m long). Please order magnifying glasses for counting microscopic colonies separately.

Type	Art. No.	VE
SC6 PLUS	EN38.1	1 Stück

Accessories:

Designation	Art. No.	Pack Qty.
Magnifying glass, 1.7x magnification (with flexible swan neck stand)	EN39.1	1 unit(s)
Magnifying glass, 3x magnification (with fixed stand arm)	EN40.1	1 unit(s)
Transparent protective panel	EN43.1	5 unit(s)

Incubators



DipSlide incubator EM4

Lightweight, small incubator specially designed for DipSlides.

With transparent, easily removable cover for quick insertion and removal of DipSlides. Easy to operate, even for inexperienced users.

A stand insert and a thermometer are also supplied. Also usable without a stand for incubation of Petri dishes and contact plates.

Technical specifications:

Art. No.	KK43.1
Type	DipSlide incubator EM4
Suitable for	23 DipSlides
Operating temperature	Room temperature up to +44 °C
Volume	4 l
Inner width	180 mm
Inner depth	180 mm
Inner height	125 mm
Outer width	230 mm
Outer depth	230 mm
Outer height	180 mm
Weight	1,5 kg
Mains connection	200 V

Type	Suitable for	Volume (l)	Art. No.	Pack Qty.
DipSlide incubator EM4	23 DipSlides	4	KK43.1	1 unit(s)

Incubators



Small incubator Heratherm™ IMC18

Thermo.

- Operating temperature range from 17 to 40 °C
- With Peltier cooling
- Interior lighting facilitates sample monitoring
- Fan for air circulation; runs permanently and is not adjustable

Technical specifications:

Art. No.	HAP4.1	PL74.1
Type	Darkened front panel	Standard model – glass front
Operating temperature	Operating temperature range from 17 to 40 °C	
Volume	18 l	
Resolution	1 °C	
Inner width	180 mm	
Inner depth	310 mm	
Inner height	290 mm	
Outer width	260 mm	
Outer depth	415 mm	
Outer height	470 mm	
Max. removable shelves	3	
Temporal temperature variance	±0,2 K	
Spatial temperature deviation	±1,2 K	
Mains connection	100–240 V, 50/60 Hz	

Delivery incl. Two removable shelves

With glass front – standard model

Type	Volume (l)	Art. No.	Pack Qty.
Standard model – glass front	18	PL74.1	1 unit(s)

With darkened front panel – IMC18 bio model

For incubation without the influence of light, cool long-term storage in the dark, light-sensitive micro-organisms and much more.

Type	Volume (l)	Art. No.	Pack Qty.
Darkened front panel	18	HAP4.1	1 unit(s)

Accessories:

Designation	Art. No.	Pack Qty.
Additional shelf for IMC18	PL75.1	1 unit(s)



Small incubator Cultura® M

For incubating 18 dip slides (e.g. ROTI® DipSlides culture medium) or 12 Petri dishes and other small vessels for verifying bacteria, fungi and yeasts.

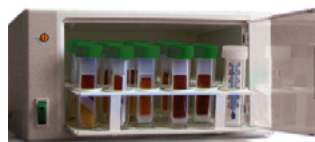
- **Operating temperature range from +5 °C above room temperature to 45 °C; temperature adjustment range from 25 to 45 °C**
- Thermometer in tube with special petroleum filling.
- Measuring range 7 to 60 °C. Graduations 1 °C. Accuracy ±1 °C.
- Dimensions: H 95 x Ø 25 mm.

Technical specifications:

Art. No.	AHH9.1
Type	Cultura® M
Operating temperature	From +5 °C above room temperature to +45 °C
Set temperature from	+25 °C
Set temperature up to	+45 °C
Volume	4 l
Inner width	220 mm
Inner depth	150 mm
Inner height	120 mm
Outer width	310 mm
Outer depth	168 mm
Outer height	155 mm
Temperature variance	±1 K
Mains connection	230 V, 50 Hz

Delivery incl. Control thermometer in the tube and shelf

Type	Volume (l)	Art. No.	VE
Cultura® M	4	AHH9.1	1 unit(s)



Multirack for Cultura® M mini incubator

Suitable for Cultura® M mini incubator. Made of ABS. For 18 tubes (Ø 25 to 30 mm). Dimensions: W 213 mm x D 142 mm x H 50 mm.

Designation	Art. No.	Pack Qty.
Multirack	AHK0.1	1 unit(s)



Cleaning

In addition to monitoring, excellent **cleanliness** forms the basis of any hygiene management, broken down into thorough **cleaning**, optionally followed by subsequent **disinfection** or **sterilisation**.

Here, both the regulations of the regulating authorities and the duty of care demand the highest degree of reliability of the products. We offer you the proven Carl ROTH quality in the form of products from carefully selected manufacturers.



Foam soap dispenser COSMOS

JM-Metzger.

Colour: White. Lockable.

Removable wall bracket for flexible handling.

Can be used with EYX5.1 foam soap cartridge.

Delivery incl. Mounting material

Material: ABS.

Bild	Passend für	B x T x H (mm)	Art. No.	VE
(1)	Schaumseifenkartusche EYX5.1	105 x 120 x 240	EYX4.1	1 Stück

Skin care ROTIDERM® Cream

Petrasch.

Hand care cream for highly stressed and sensitive skin. Contains essential fatty acids, sorbitol, waxy high fatty acids and dextrorotatory lactic acid. Helps to regenerate cracked skin and rebuild its natural acidic mantle. pH 4, unscented.

Application: Spread on clean, dry skin after your hands have been subjected to great stress. Absorbs completely without leaving a greasy film.

Pack.	Art. No.	Pack Qty.
55 g dispenser	5535.2	1 unit(s)

Handreinigung Schaumseifenkartuschen

Schaumseife mit Duftnote Grapefruit.

Pic.	Suitable for	W x D x H (mm)	Art. No.	Pack Qty.
(1)	EYX5.1 foam soap cartridge	105 x 120 x 240	EYX4.1	1 unit(s)

Cleaning



Floor mop PROFI

Leifheit.

With convenient foot control and changeable mop heads for universal use on all floor surfaces. Aluminium handle with hanging loop and non-slip grip. Flexible, flat-folding 360-degree swivel head enables effective cleaning in a wavy line. Wiping width 420 mm.

Delivery incl. PROFI micro duo mop head

Version	Art. No.	Pack Qty.
Aluminium handle 140 cm	XP59.1	1 unit(s)
Telescopic handle 80–135 cm	XP60.1	1 unit(s)



Mop wringer PROFI Evo

Leifheit. Material: PP.

Capacity: 8 litres. Sturdy foot-operated mop wringer allows cleaning without bending down, using force or coming into contact with dirty water.

The mop wringer can be stowed inside the bucket for space-saving storage. With sturdy carry handle and two built-in castors for easy transport. Ideal for use in combination with PROFI floor mops.

Version	Art. No.	Pack Qty.
PROFI Evo mop wringer	XP64.1	1 unit(s)



Mop head for PROFI floor mop

PROFI micro duo

Optimum dirt pick-up thanks to duo-fibre system. Suitable for all floor types. Washable at 60 °C.

Pic.	Version	Art. No.	Pack Qty.
(1)	PROFI micro duo mop heads	XP61.1	1 unit(s)

PROFI cotton plus

With cotton, ideal for tiles and stone floors. Removes even coarse dirt. Washable at 60 °C.

Pic.	Version	Art. No.	Pack Qty.
(2)	PROFI cotton plus mop heads	XP62.1	1 unit(s)

PROFI static plus

For dry cleaning. Attracts dust and hairs using static electricity. Washable at 40 °C.

Pic.	Version	Art. No.	Pack Qty.
(3)	PROFI static plus mop heads	XP63.1	1 unit(s)



Cleaning agents Neutral cleaner G530

Surfactant-based. For manual cleaning of all water-resistant materials and surfaces. High grease-dissolving power, high foam activity. Cleaned objects dry quickly and streak-free, no additional drying by hand needed. Gentle on materials, kind to the skin, pleasant scent. Suitable for use in foodstuffs processing businesses, also ideal as a dishwashing detergent. Tried and tested in car washes and industry.

Warning H319

Type	Art. No.	Pack Qty.
Neutral cleaner G530	PY15.1	1 l
Neutral cleaner G530	PY15.2	10 l



Cleaning



Cleaning agents Concentryl ActiveFoam foam cleaner

Alkaline degreaser for the food sector. Active foam thoroughly removes all grease and oil from stainless steel, glass and other alkaline-resistant surfaces.

Danger H314

Type	Art. No.	Pack Qty.
Concentryl ActiveFoam foam cleaner	NH50.1	1 l



Reusable wipes KIMTECH® Pure

Kimberly-Clark. Material: PP.

Lint-free, soft and highly absorbent. Thickness 70 µm.

For absorbing acids, bases, solvents, oils and aqueous solutions.

Suitable for use in clean rooms of ISO class 7 and higher.

Colour	Length (cm)	Width (cm)	Packaging type	Pack.	Art. No.	Pack Qty.
white	38	35	Bag	1 x 35 cloths	0393.3	35 unit(s)
white	38	35	Bag	12 x 35 cloths	0393.4	420 unit(s)

Disposable wipes KC Professional

Kimberly-Clark. Material: Cellulose.

Type 28648. Disposable cleaning wipes with central dispenser, suitable for rough surfaces. Pre-perforated wipes, wipe size 32 x 31 cm.



Ply	Colour	Length (cm)	Width (cm)	Ø (cm)	Packaging type	Pack.	Art. No.	Pack Qty.
1-ply	white	32	31	20	Role	6 x 60 wipes	CLT0.1	6 unit(s)

Sterilisation



Benchtop steam steriliser CertoClav EL series

CertoClav.

With aluminium chamber. For steam heating of substances and use in research & development.

Applications: preparation of nutrient media, as well as sterilisation of waste, utensils, bottles and instruments.

Features:

- Bayonet lock for lid lock
- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- Pressure regulation by control valve
- Alternate versions with different temperature / pressure levels
125/140 °C or 115/121 °C are available

Technical specifications:

Art. No.	TL61.1	TL62.1	TL63.1	TL64.1
Type	EL 12L		EL 18L	
Volume	12 l		18 l	
Temperature stage	125/140 °C	115/121 °C	125/140 °C	115/121 °C
Pressure level	1,4/2,7 bar	0,7/1,2 bar	1,4/2,7 bar	0,7/1,2 bar
Test pressure	4.1 bar			
Ventilation method	Flow method			
Inner height	230 mm		360 mm	
Ø Internal	240 mm			
Outer height	535 mm		665 mm	
Ø External	250 mm			
Diagonal	350 mm		465 mm	
Max. wire basket capacity	1 unit(s)		2 unit(s)	
Power consumption	1,900 W			
Weight	7 kg		9 kg	
Mains connection	230 V, 50/60 Hz			

Delivery incl. Precision pressure gauge with maximum drag pointer, precision thermometer, one wire basket (for Order No. TL63.1 and TL64.1, 2 wire baskets can be incorporated, please order separately if required) and aluminium Instrument plate (Ø 225 mm, H 40 mm) with three feet as baseplate above the water.

Type	Volume (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.
EL 12L	12	125/140	1,4/2,7	TL61.1	1 unit(s)
EL 12L	12	115/121	0,7/1,2	TL62.1	1 unit(s)
EL 18L	18	125/140	1,4/2,7	TL63.1	1 unit(s)
EL 18L	18	115/121	0,7/1,2	TL64.1	1 unit(s)

Additional wire basket

For simple filling with sterilisable material. Inside Ø 225 mm, H 170 mm. Mesh width: ¼ inch. 2. wire basket for model EL 18L or replacement-wire basket for model EL 12L.

Designation	Art. No.	Pack Qty.
Wire basket	TL65.1	1 unit(s)



Benchtop steam steriliser

CertoClav.

With stainless steel chamber. For culture media processing, as well as sterilisation of equipment and waste. No water connection required. Complementary to the large autoclaves. Space-saving positioning on the laboratory bench.

- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent

Technical specifications:

Art. No.	CYH3.1	CYH4.1	CYH5.1
Type	Classic		Multicontrol 2
Volume	18 l		
Temperature stage	125/140 °C	115/121 °C	RT–140 °C
Pressure level	1,4/2,7 bar	0,7/1,2 bar	max. 2,7 bar
Operation	Manual		LCD display
Timer	analogue (0 to 60 min or continuous operation)		digital (1 min to 14 d)
Process logging			PC-Software
Port			USB
Test pressure	4.1 bar		
Inner height	300 mm		
Ø Internal	260 mm		
Outer height	550 mm		
Ø External	270 mm		
Diagonal	424 mm		
Max. wire basket capacity	1 unit(s)		
Power consumption	1,300 W		
Weight	13 kg		
Mains connection	230 V, 50/60 Hz		

Model CertoClav Classic

Controlled by precision valves and thermostat. With timer. Models available with sterilisation temperature of 125/140 °C or 115/121 °C.

Delivery incl. Steam outlet cock, precision thermometer and pressure gauge. Wire basket, please order separately

Type	Volume (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.
Classic	18	125/140	1,4/2,7	CYH3.1	1 unit(s)
Classic	18	115/121	0,7/1,2	CYH4.1	1 unit(s)

Model CertoClav MultiControl 2

With freely programmable control system (room temperature to 140 °C). Standard sterilisation programs preinstalled. USB port for connectivity to PC incl. basic software (to display process data).

Delivery incl. Electronic control, precision pressure gauge, steam outlet cock and PC software. Please order wire basket separately.

Typ	Volumen (l)	Temperaturstufe (°C)	Druckstufe (bar)	Art. No.	VE
Multicontrol 2	18	RT–140	max. 2,7	CYH5.1	1 Stück

Wire basket

For loading items to be autoclaved. Inside-Ø 250 mm, H 230 mm. Mesh width: ¼ inch.

Designation	Art. No.	Pack Qty.
Wire basket	CYH6.1	1 unit(s)



Sterilisation



Horizontal benchtop autoclave CertoClav Vacuum Pro series

CertoClav.

For the sterilisation of liquids, solids and waste, e.g. instruments, hollow bodies, porous materials, textiles, plastics, etc.

- Chamber material: Stainless steel 1.4301
- Sterilisation temperature 105 to 134 °C, sterilisation pressure 0.2 to 2.1 bar
- 7" Touch-screen user interface
- 12 sterilisation programs
- Video step-by-step guide can be activated directly on the steriliser
- Integrated steam generator separated from the chamber
- Integrated water tank for distilled water (approx. 4 litres)
- Connections for report generation: USB, SD card, RS 232 and RS 485
- Network-enabled with Ethernet, LAN and Wi-Fi
- Flexible PT-1000 media temperature sensor to measure and regulate the temperature directly in the medium
- Loading capacity of bottles: 46 x 50 ml, 23 x 100 ml, 15 x 250 ml or 8 x 500 ml
- Tray set: middle drawer B 220 x L 430 mm, upper/lower drawer B 170 x L 430 mm

Technical specifications:

Art. No.	KAA6.1
Type	Vacuum Pro
Volume	22 l
Temperature stage	105 - 134 °C
Pressure level	0,2 - 2,1 bar
Port	USB, SD card, RS 232 and RS 485
Ø Internal	250 mm
Inner depth	450 mm
Outer length	650 mm
Outer width	500 mm
Outer height	430 mm
Weight	63 kg
Mains connection	220 V, 50/60 Hz

Delivery incl. 3 drawers, drawer enclosure, handle, quick connect waste water hose and CertoCloud basic license. Please order base plate for bottles and flasks separately.

Type	Volume (l)	Temperature stage (°C)	Pressure level (bar)	Art. No.	Pack Qty.
Vacuum Pro	22	105 - 134	0,2 - 2,1	KAA6.1	1 unit(s)



Accessories Base plate for benchtop autoclave CertoClav Vacuum Pro series

CertoClav.

For flasks and bottles.

Designation	Art. No.	Pack Qty.
Base plate	KAA7.1	1 unit(s)

Sterilisation bags stericlin® A 121 °C

ROTH SELECTION. Material: Paper, Plastic (Film).
Autoclavable: Yes.

Pre-sealed on three sides, for sealing with heat sealing units (sealing temperature: 175–200 °C). The sterilisation-resilient kraft paper with a strength of 70 g/m² constitutes an effective barrier against germs, yet is also permeable to air, vapour and sterilising gases. With three imprinted indicators outside the filling area: STEAM, EO and FORM. According to DIN EN ISO 11607 and DIN 868-5.

Packaging material for medical disposables and reprocessible medical devices.

Medical device class I MDD

L x W (mm)	Art. No.	Pack Qty.
200 x 100	HXE0.1	2,000 unit(s)
250 x 125	HXE1.1	2,000 unit(s)
300 x 150	HXE2.1	1,000 unit(s)



Sterilisation pouch Steriking® Self-adhesive

ROTH SELECTION. Material: Paper, Medical-grade paper (70 g/m²) and multi-layer laminated foil made of PET/PP (12/40 µm).

For packaging sterile goods with subsequent sterilisation using steam, ethylene oxide or formaldehyde gas under normal sterilisation conditions (3 minutes at 134 °C or 15 minutes at 121 °C).

- Self-adhesive closure for use without a heat sealer
- With indicator imprints for steam and ETO gas sterilisation
- Standards: ISO 11607-1:2006, ISO 11607-2:2006 and EN 868-5:2009
- Acc. to 93/42/EEC and 2007/42/EC concerning medical devices (accessories) according to Class 1, CE-marked

Medical device class I MDD

L x W (mm)	Art. No.	Pack Qty.
200 x 90	KKX9.1	200 unit(s)
250 x 60	KKX8.1	200 unit(s)
250 x 90	KKY0.1	200 unit(s)
270 x 130	KKY1.1	200 unit(s)
350 x 200	KKY2.1	200 unit(s)
400 x 250	KKY3.1	200 unit(s)
450 x 300	KKY4.1	200 unit(s)

Sterilisation

Sterilisation Control



Sterile indicator strip ROTILABO®

ROTH SELECTION.

Self-adhesive, for labelling or sealing sterilisation vessels. Labellable. Inner Ø core 76 mm.

(1) Steam sterilisation

Autoclavable: Yes.

- Colour change from yellow to brown:
121 °C → 10 min/135 °C → 2 min

L x W	Art. No.	Pack Qty.
55 m x 19 mm	XC20.1	1 unit(s)

(2) Hot air sterilisation

- Colour change of the V print from green to brown:
155 °C → 30 min (Poupinel method)

L x W	Art. No.	Pack Qty.
55 m x 19 mm	XC21.1	1 unit(s)



Indicator strips Comply™ SteriGage™

A 121 °C

3M. Autoclavable: Yes.

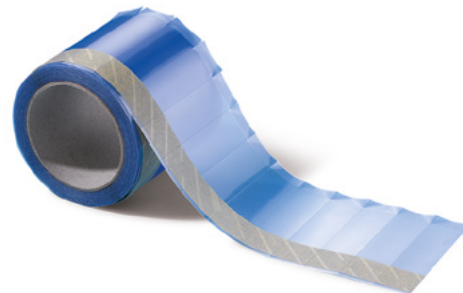
Integrating class 5 indicators (integrators)

Individually packaged chemical indicators for monitoring the sterilisation process.

Clear results thanks to „Moving Front“ technology: As the sterilisation process progresses, a dark strip appears, which either moves to the „Accept“ area (passed) or remains in the „Reject“ area (not passed). This can be read from the indicator directly without the need for interpretation.

- Suitable for steam sterilisation at +121 °C and +134 °C
- High performance: The reaction is the same as that of a bio indicator strip during the sterilisation process

Type	Art. No.	VE
1243	ANX5.1	100 Stück



Sterile indicator labels Comply™

A 121 °C

3M. Autoclavable: Yes.

Simple identification labels for steam sterilisation, with treatment indicator, lead-free. Can be labelled with an indelible pen, easily removable without residues, especially from metal containers.

L x W (mm)	Art. No.	Pack Qty.
100 x 25	ANX6.1	500 unit(s)



Bowie-Dick single use test pack stericlin®

ROTH SELECTION.

Indicator for autoclave monitoring

Steam penetration test for daily function monitoring and quality assurance of the steam steriliser according to DIN EN ISO 11140-4. Free from heavy metals and toxic substances.

Application:

- Place the test pack in the steriliser
- Carry out the Bowie-Dick test procedure
- Remove the test sheet
- Review the result: In the event of complete steam penetration, the indicator will evenly change colour from blue to pink. In the event of a malfunction, however, no even colour conversion will occur. Following a successful colour conversion, the colour hue of the indicator will no longer change. This ensures complete reliability of documentation.

L x W (mm)	Art. No.	Pack Qty.
125 x 125	HXC6.1	20 unit(s)



Disinfection

Ozone generator OZ series **NEW/+**

Phoenix Instrument.

For local oxidative odour neutralisation and disinfection (elimination of micro-organisms) of surfaces like fixtures, furniture surfaces and walls.

Ozone (O_3) is a strongly oxidising molecule made up of three oxygen atoms. It exists as a gas and very quickly breaks down in the air into normal oxygen (O_2) under standard conditions. Ozone can remove harmful substances in the air.

An integrated timer ensures ozonisation at non-working times without personnel present. With proper application (sufficient ventilation), there are generally no more hazardous substances in the air after cleaning.

- Disinfection of rooms (germs, viruses, bacteria)
- Sanitation of rooms
- Mould spores in the air
- Musty smell
- Memory for 16 programmes - each programme comprises day (d) and On/Off time pair (h:min)



Technical specifications:

Art. No.	1CHY.1	1CK0.1
Type	OZ-10	OZ-30
Power consumption	10 g/h	30 g/h
Performance	130 W	250 W
Area of individual field	36 m ²	82 m ²
Volume	100 m ³	320 m ³
Flow rate	150 m ³ /h	250 m ³ /h
W x D x H	170 x 380 x 260 mm	220 x 440 x 305 mm
Ambient conditions	0 to 40 °C at 70% RH	
Weight	4 kg	6 kg
Mains connection	220-240 V, 50 Hz	

Type	Art. No.	Pack Qty.
OZ-10	1CHY.1	1 unit(s)
OZ-30	1CK0.1	1 unit(s)

Disinfection

Surface disinfectant neoform K plus

Dr. Weigert.

Disinfectant (liquid concentrate) based on didecylidimethyl ammonium chloride and N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine. For combined cleaning and disinfection of surfaces and objects in the food industry. Excellent cleaning performance and safe disinfection.

Spectrum of activity: Bactericidal, yeasticidal, imited virucidal efficacy. Fragrance and colourant-free.


Use disinfectants with care.

Always read the labelling and product information before use!



Technical specifications:

Art. No.	CLP8.1	CLP8.2
Delivery form	Concentrated liquid	
Ingredients	Didecylidimethyl ammonium chloride, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	
Bactericide	Yes	
Partially virucidal	Yes	
Dosing	0.5–4.0%	

 **Danger** H302-H315-H318-H410

Type	Packaging type	Art. No.	Pack Qty.
neoform K plus	Bottle	CLP8.1	2 l
neoform K plus	Canister	CLP8.2	10 l





Disinfection



Surface disinfectant neoform K sprint

Dr. Weigert.

Ready-to-use fast-acting disinfectant based on propane-1-ol and ethanol for quick disinfection of surfaces and equipment in the food industry. Also suitable for use in refrigerated areas.

Spectrum of activity: Bactericidal, fungicidal, limited virucidal efficacy and effective against noroviruses. Dries without leaving any residue, no additional rinsing needed. DVG and IHO listed.

Use disinfectants with care. Always read the label and the product information before use.

Technical specifications:

Art. No.	CLP9.1	CLP9.2
Delivery form	Ready-to-use liquid	
Ingredients	Propane-1-ol, ethanol	
Bactericide	Yes	
Partially virucidal	Yes	
Fungicide	Yes	
Listing	DVG, IHO	



Warning H226-H319-H336

Type	Packaging type	Art. No.	Pack Qty.
neoform K sprint	Spray bottle	CLP9.1	750 ml
neoform K sprint	Canister	CLP9.2	10 l

Quick Tests for Disinfection

Test strips can be used to check the concentration of disinfectant quickly and easily. The stick is briefly dipped into the solution and then compared with the color scale.

A reliable result is obtained within a few seconds.



Test swabs QUANTOFIX®

Benzalkonium chloride

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Benzalkonium chloride	0-10-25-50-100-250-500-1000	HNY9.1	100 unit(s)

Chlorine

Test strips with additional reagent

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Chlorine Cl ₂	0-1-3-10-30-100	H921.1	100 unit(s)

Chlorine 500

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Chlorine Cl ₂	0-25-50-100-250-500	1EL0.1	100 unit(s)

Chlorine sensitive

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Chlorine sensitive Cl ₂	0-0,1-0,5-1-3-10	HPA0.1	100 unit(s)

Peracetic acid I

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Peracetic acid C ₂ H ₃ O ₃	0-5-10-20-30-50	LT44.1	100 unit(s)

Peracetic acid III

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Peracetic acid C ₂ H ₃ O ₃	0-500-1000-1500-2000	LT46.1	100 unit(s)

Peroxide II

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Peroxide H ₂ O ₂	0-1-3-10-30-100	C735.1	100 unit(s)

Peroxide III

Verification of	Gradation (mg/l)	Art. No.	Pack Qty.
Peroxide H ₂ O ₂	0-50-150-300-500-800-1000	HPA3.1	100 unit(s)

pH indicator rod pH-Fix

(1) PH 3.6–6.1 in square packaging

pH measuring range	Gradation	Art. No.	Pack Qty.
3.6 to 6.1	3,6-4,1-4,4-4,7-5,0-5,3-5,6-6,1	H916.2	100 unit(s)



Laboratory Equipment



Laboratory chair Labster

bimos. Material: Artificial leather (Seat and backrest).
GMP-compatible and suitable for use in clean rooms,
ideal for laboratories with safety classes S1 to S3.

- High level of seating comfort through Skai artificial leather and soft upholstery
- Fully washable and can be disinfected
- Seamless design concept
- Mechanics and soft-cover lining with control panel
- Excellent ergonomics, height-adjustable backrest
- Auto-motion technology adapts the inclination of the seat and backrest automatically to the working posture
- Compact design, small space requirement
- Space-saving star base
- Load-dependent limited dual casters for hard floor surfaces
- Max. load: 120 kg

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.
Castors	black	400 to 510	HHA2.1	1 unit(s)
Rollers	grey	400 to 510	HHA3.1	1 unit(s)
Rollers	red	400 to 510	HHA4.1	1 unit(s)
Rollers	mint green	400 to 510	HHA5.1	1 unit(s)
Rollers	black	450 to 650	HHA6.1	1 unit(s)
Rollers	grey	450 to 650	HHA7.1	1 unit(s)
Rollers	red	450 to 650	HHA8.1	1 unit(s)
Rollers	mint green	450 to 650	HHA9.1	1 unit(s)

With ring base

Version	Colour	Seat height (mm)	Art. No.	Pack Qty.
Glides	black	550 to 800	HHC0.1	1 unit(s)
Glides	grey	550 to 800	HHC1.1	1 unit(s)
Glides	red	550 to 800	HHC2.1	1 unit(s)
Glides	mint green	550 to 800	HHC3.1	1 unit(s)

Laboratory stools Labster

bimos. Material: Artificial leather (Seat).
GMP-compatible and suitable for use in clean rooms,
ideal for laboratories with safety classes S1 to S3.

- High level of seating comfort through Skai artificial leather and soft upholstery
- Fully washable and can be disinfected
- Seamless design concept
- Mechanics and soft-cover lining with control panel
- Adjustable seat height with ring-release gas elevation
- Extra-large seat surface with Ø 380 mm
- Compact design, small space requirement
- Load-dependent limited dual casters for hard floor surfaces
- Max. load: 120 kg

Version	Colour	Seat height (mm)	SeatØ (mm)	Art. No.	Pack Qty.
Rollers	black	450 to 650	380	HHC5.1	1 unit(s)
Rollers	grey	450 to 650	380	HHC6.1	1 unit(s)
Rollers	red	450 to 650	380	HHC7.1	1 unit(s)
Rollers	mint green	450 to 650	380	HHC8.1	1 unit(s)