



INSTRUMENT
REPROCESSING



INSTRUMENTS

MANUAL & AUTOMATED REPROCESSING OF INSTRUMENTS

We care for patient and staff safety ... and for your valuable instruments

Reusable invasive medical devices must be reprocessed using a validated cleaning and disinfection process prior to a validated sterilizing process to guarantee patient safety.

Reprocessing is detailed, labor intensive, time-consuming and can be prone to errors. Each reusable medical device requires specific reprocessing steps or techniques appropriate for that device.

The staff being responsible for the steps in the process need

- access to the manufacturers instructions and proper training to learn how-to.
- equipment (e.g. appropriately sized brushes) available for use.
- PPE, to protect themselves against biohazards or splashes of reprocessing agents.

A used medical device is potentially dangerous. It can transmit infectious diseases e.g. in case of sharp injuries to the staff.

But even a process state of the art, which guarantees patient and staff safety may damage your valuable surgical instruments/reusable medical devices.

For decades B.Braun has developed and manufactured surgical instruments and reprocessing agents as well as offering a complete infection control portfolio including PPE.

An optimized process using B. Braun products fulfills highest requirements regarding patient and staff safety resulting in a minimized amount of repair and maintenance costs.

B. Braun offers a comprehensive portfolio of reprocessing products, service, training and consulting.

| | | |
|-------------------------------|---|---|
| <p>IN GENERAL</p> | <ul style="list-style-type: none"> ▪ Infection control plans ▪ MSDS Material Safety Data Sheets ▪ Dosing table and dosing aids | <ul style="list-style-type: none"> ▪ Expert reports and certificates ▪ Stickers ... and much more |
| <p>AUTOMATED REPROCESSING</p> | <ul style="list-style-type: none"> ▪ Process analysis and optimization, regarding cleaning, disinfection, consumption of reprocessing agents and batch time ▪ Validation of the cleaning and disinfection process | <ul style="list-style-type: none"> ▪ Documentation ▪ Determining the pH-Value in the cleaning step ▪ Chemical analysis of the water quality ... and much more |

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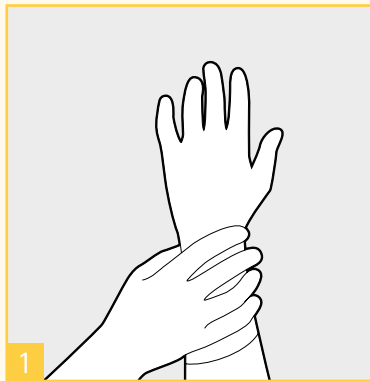
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ACCESSORIES

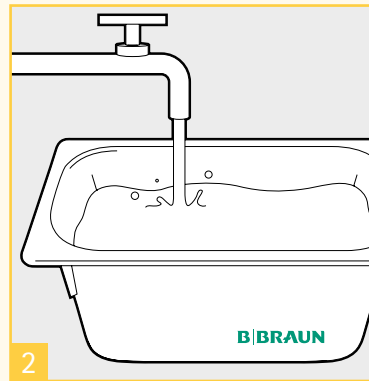
- 36 Accessories for instrument reprocessing

INSTRUMENTS

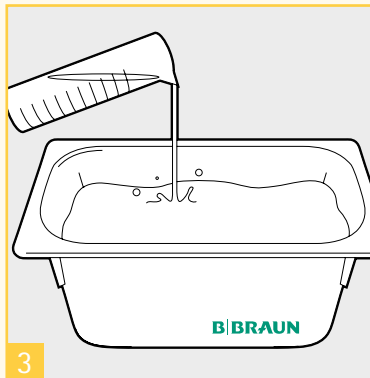
MANUAL PROCESSING OF INSTRUMENTS



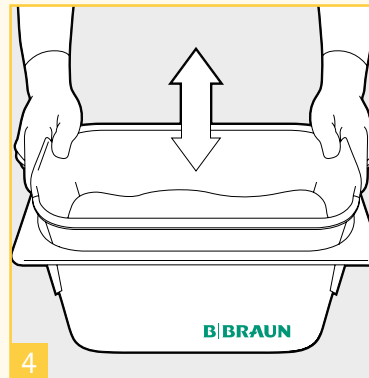
Put on gloves and PPE.



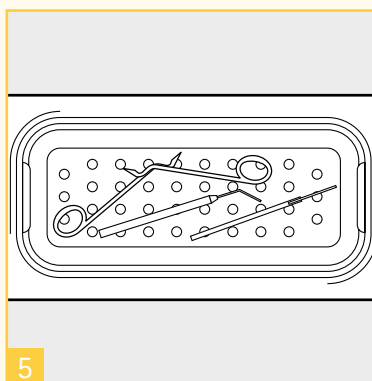
Fill container, e.g. instrument bath, with ca. 20 °C water.



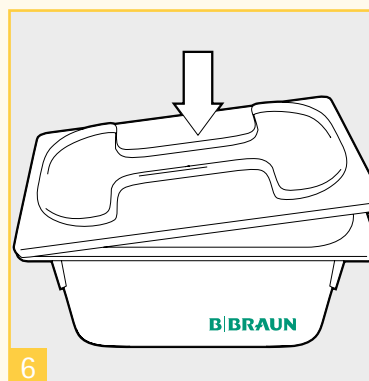
Using a suitable dosage system, measure disinfectant and add to the water; for a powder product, wait until the disinfectant has dissolved.



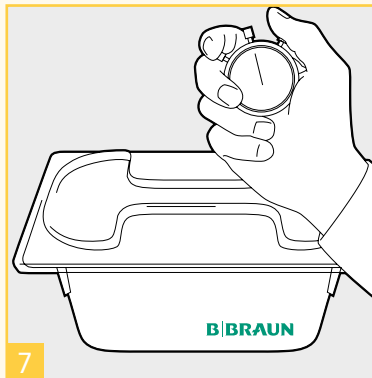
To mix, move tray upwards and downwards.



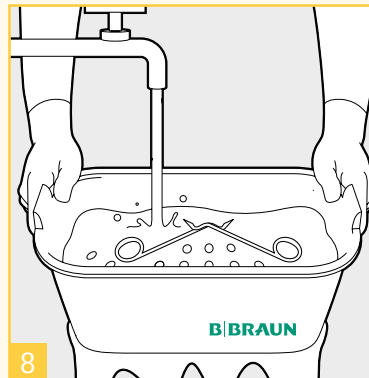
Place instruments and equipment in the solution, making sure they are fully immersed.



Close bath.



Wait until the exposure time has fully elapsed. (The exposure time starts, when the last instrument is placed in the bath).



Rinse the instruments thoroughly under cold running tap water. Perform the final rinse in demineralized or distilled water. Dry instruments with an absorbent, lint-free cloth towel.

MANUAL CLEANER

Cleaner N ...for heat sensitive & heat resistant medical devices

PROPERTIES

- For manual and semi-automatic cleaning of surgical instruments, rigid and flexible endoscopes
- Economically low ready-to-use working concentration. (1 %/ 15 min.)
- Excellent cleaning power to remove protein- or lipid based soil
- pH-neutral and therefore, highly material compatible
- May be used in an ultrasonic bath

INSTRUCTIONS FOR USE

1% (diluted with hand warm water). Soak instruments, ensure they are fully covered. Use suitable cleaning utensils. Exposure time 15 minutes, prolong as required. After cleaning, rinse instruments thoroughly with water and proceed as required. The solution should be renewed daily, or if visibly soiled. Follow instructions of the manufacturer of instruments and endoscopes.

Especially channels of flexible endoscopes must be cleaned with brushes and flushed with water, e.g. by using a syringe.

WGO/WEO* Global Guidelines
recommend low-foaming, endoscope-compatible detergents
for manual cleaning of flexible endoscopes.

| PRODUCT SIZE | REF |
|----------------|---------|
| 1000 ml bottle | 3893146 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate Ready-to-use solution

ca. 6.7 ca. 7
ca. 1.08
clear, colourless clear, colourless



pH-neutral

Cleaner N – Composition:

Surfactants, complexing agents, corrosion inhibitors, perfume, excipients | Ingredients in accordance with the Regulations for Detergents EG 648/2004 | < 5-15% anionic surfactants, < 5-15 % nonionic surfactants, < 5% polycarboxylates, glutaral, perfume (Limonene) | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

* WGO = World Gastroenterology Organization / WEO = World Endoscopy Organization, „Endoscope disinfection - a resource-sensitive approach“, Feb. 2011

MANUAL ENZYMATIC CLEANER

Helizyme ...for flexible endoscopes and sensitive medical devices

PROPERTIES

- Excellent cleaning power
- For manual and semi-automatic cleaning of surgical instruments, rigid and flexible endoscopes
- Innovative combination of a ternary surfactant system with proteolytic enzymes
- Economically low ready-to-use working concentration. (1 %/5 min.)
- Has excellent cleaning power against contaminants containing proteins and lipids
- Extraordinary effective biofilm remover (demonstrated efficacy by in-vitro tests)
- pH-neutral
- High material compatibility
- May be used in an ultrasonic bath
- Removes dried on dirt
- Recommended by Aesculap to clean diamond cutters

INSTRUCTIONS FOR USE

1 % (diluted with hand warm water). Soak instruments, ensure they are fully covered. Use suitable cleaning utensils. Exposure time 5 minutes, prolong as required.

For cleaning diamond cutters, sonicate in 50% Helizyme for 30 minutes in an ultrasonic water bath set at 60 °C.

After cleaning, rinse instruments thoroughly with water and proceed as required. The solution should be renewed daily, or if visibly soiled.

Follow instructions of the manufacturer of instruments and endoscopes.

Especially channels of flexible endoscopes must be cleaned with brushes and flushed with water, e.g. by using a syringe.



Perfume-free

PRODUCT SIZE

1000 ml bottle

5 l canister

REF

18557, 18765, 19862

18767, 19448, 19863

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate Ready-to-use solution

ca. 6 ca. 7
ca. 1.08
Clear, blueish clear, light blue

Helizyme – Composition:

Surfactants, enzymes, complexing agents, corrosion inhibitors, excipients. | Ingredients in accordance with the Regulations for Detergents EG 648/2004 | < 5 % anionic surfactants, < 5 % non-ionic surfactants, < 5 % polycarboxylate, methylparabene, enzymes | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

MANUAL DISINFECTING CLEANER



STORZ
KARL STORZ – ENDOSKOPE

Stabimed® fresh ...cleaning and disinfection in one step

PROPERTIES

- Fresh and pleasant smell
- Fast effective & economic with a broad efficacy spectrum
- Liquid concentrate based on alkylamine
Phenol-, QAC- & Aldehyde-free, therefore non protein-fixing
- Excellent cleaning properties, easily removes blood and secretions
- Fast and gentle reprocessing of reusable medical devices such as flexible or rigid endoscopes, anaesthetic equipment and other heat sensitive materials
- Can be used in ultrasonic baths
- Recommended by Aesculap
- Approved and listed by Karl Storz



AT A GLANCE

- Simultaneous cleaning & disinfection of heat resistant reusable medical device
- Effective against bacteria, yeasts and enveloped viruses at 1 %/5 minutes
- Fresh and pleasant smell
- Active against *Mycobacterium tuberculosis* within 2 %/15 minutes
- Very gentle to all kind of material
- Contains corrosion inhibitors
- Used in ultrasonic bath

INSTRUCTIONS FOR USE

After soaking in ready-to-use Stabimed® fresh working solution, rinse the instruments thoroughly under cold running tap water. Perform the final rinse in demineralized or distilled water. Dry instruments with an absorbent, lint-free cloth & towel.

Prior to the first use of Stabimed® fresh the instrument bath shall be cleaned with water and Helizyme, to remove potential residues of previously used products (in particular if aldehyde-based disinfectants have been used). Do not mix with aldehyde based products.

| PRODUCT SIZE | REF |
|----------------|----------------------------|
| 1000 ml bottle | 19689, 19829, 19860, 19881 |
| 5 l canister | 19690, 19828, 19861, 19882 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 10
ca. 0.98
clear
blue-green

Ready-to-use solution

ca. 9
clear
blue-green

MICROBIOLOGICAL EFFICACY

| Micro-organism | Conc. | Contact time | ml/l |
|--|-------|--------------|----------|
| Cleaning and disinfection of instruments acc. DGHM ¹⁾ /VAH ²⁾ incl. Enveloped viruses (incl. HBV, HCV, HIV) ⁴⁾ Vaccinia-virus | 1.0% | 5 min. | 10 ml/l |
| | 0.5% | 15 min. | 5 ml/l |
| Tuberculocidal (M. terrae) acc. DGHM ¹⁾ /VAH ²⁾ EN 14348, 14563 | 2.0% | 15 min. | 20 ml/l |
| | 0.5% | 30 min. | 5 ml/l |
| Adenovirus | 4.0% | 1 h | 40 ml/l |
| Polyomavirus | 2.0% | 1 h | 20 ml/l |
| Cleaning and disinfection in an ultrasonic bath | 1.0% | 5 min. | 10 ml/l |
| Bactericidal acc. EN 13727, 14561 | 0.25% | 15 min. | 2.5 ml/l |
| Levurocidal acc. EN 13624, 14562 (Candida albicans) | 0.25% | 15 min. | 2.5 ml/l |

CAUTIONS

Limited compatibility with silicone based products.
Follow the reprocessing recommendation of the instrument manufacturer.



replaces Stabimed®

Stabimed® fresh – Composition:

100 g Stabimed® fresh contains cocospropylene diamine 20.0 g, excipients: surfactants, solvents, complexing agents, corrosion inhibitors, solubilisers, perfume, colourants. | Ingredients in accordance with the Regulations for Detergents EG 648/2004: 15–30% nonionic surfactants, perfume | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

MANUAL HIGH-LEVEL DISINFECTANT



STORZ
KARL STORZ – ENDOSKOPE

Stabimed® ultra ...approved and listed by Karl Storz

PROPERTIES

- Highly effective within only 10 minutes
- For high-level disinfection of flexible endoscopes
- Aldehyde- & phenol-free
- Small volumes to be stored
- Completely biodegradable
- Bactericidal
- Fungicidal
- Mycobactericidal
- Virucidal
- Sporicidal

Advanced granulated formulation with highly fast virucidal activity of 2% / 10 minutes.



AT A GLANCE

- Aldehyde-, QAC- & phenol-free
- High material compability thanks to neutral pH
- Extremely effective active agent based on peracetic acid
- Excellent cleaning performance
Dust-free pearl-granulation
- Suitable for invasive & non-invasive instruments, especially for flexible endoscopes
- Approved and listed by Karl Storz Endoskope

INSTRUCTIONS FOR USE

Terminal disinfection of thermolabile instruments

e.g. flexible endoscopes

- Wear gloves and protective clothing, follow the reprocessing recommendations of the endoscope manufacturer
- Pre-cleaning in the examination room: immediately after the examination (with an enzymatic cleaner e.g. Helizyme)
- Manual cleaning in the reprocessing room: clean the channels and other parts of the endoscope with special cleaning brushes (with an enzymatic cleaner e.g. Helizyme)
- Rinsing: Rinse with water
- Terminal manual disinfection: with StabimedR ultra (e.g. 2%, 10 min.)
- Rinsing: Thoroughly rinse with water, use fully demineralized sterile water for the final rinse
- Allow to dry completely (low temperature sterilization: if available and required)

| PRODUCT SIZE | REF |
|---------------------|-------|
| 800 g powder bottle | 19812 |
| 4 kg bucket | 19813 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate Ready-to-use solution

n.a. 7 – 8
n.a. ca. 1 g/cm³
white clear
powder light blue

MICROBIOLOGICAL EFFICACY

| Micro-organism | Test Norms | Concentration |
|--|--------------------|---------------|
| Cleaning and disinfection of thermostabil and thermolabil instruments for bacteria, mycobacteria, yeasts, viruses and spores | DGHM/VAH 2001 | 2.0%/ 10 min |
| | EN 13727, EN 13624 | 1.5%/ 15 min |
| | EN 14348, EN 14561 | |
| | EN 14562, EN 14563 | |
| Fungi (<i>A. brasiliensis</i>) | DGHM/VAH 2001 | 2.0%/ 15 min |
| | EN 14476, EN 13704 | EN 14562 |

* According to VAH-Statement 4/2007

DISINFECTION OF THERMOSTABLE INSTRUMENTS

Wear gloves and protective clothing, pay attention to the reprocessing recommendations of the instrument manufacturer.

- Disinfection of pre-cleaned instruments: Place the instruments after the pre-cleaning in the Stabimed® ultra solution (2% – 10 min.), making sure they are completely immersed
- When disinfection is complete, rinse the instruments thoroughly under running tap-water, perform a final rinse with fully demineralized water, and allow to dry completely or use a lint-free towel for drying. Use a lubricant if indicated, inspect, perform a function check and pack the instruments e.g. in a closed container for steam sterilization.
- If more details are requested please see: www.a-k-i.org



Virucidal & sporicidal

Stabimed® ultra – Composition:

Stabimed® ultra contains peracetic acid 0.16% in situ (diluted at 10 g/l in water). | Ingredients in accordance with the Regulations for Detergents EG 648/2004: < 5% anionic surfactants

Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

MANUAL DISINFECTANT



STORZ
KARL STORZ – ENDOSKOPE

Helipur® H plus N ...for heat sensitive medical devices

PROPERTIES

- Liquid concentrate aldehyde-based
- Free of formaldehyde
- Gentle reprocessing of rigid and flexible endoscopes, anaesthetic equipment and other heat sensitive material
- Broad efficacy spectrum: bactericidal (incl. MRSA), fungicidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HCB, HIV)¹⁾ and non-enveloped viruses
- Economically low ready-to-use working concentration: (1 %/30 Min.; 1.5 %/15 Min. DGHM²⁾/VAH³⁾)
- Can be used in ultrasonic baths
- Approved and listed by Karl Storz



AT A GLANCE

- Highly effective
- Excellent material compatibility
- Virucidal RKI
- Free of formaldehyde
- For rigid and flexible endoscopes
- DGHM²⁾-/VAH³⁾-listed

INSTRUCTIONS FOR USE

After disinfection rinse the instruments thoroughly under cold running tap water. Perform the final rinse in demineralized or distilled water.

Use Helizyme or Cleaner N for cleaning of flexible endoscopes prior to disinfection.

Visibly contaminated solutions shall be discarded.

CAUTION

Do not mix with amine based products.

MICROBIOLOGICAL EFFICACY

| Micro-organism | Conc. | Contact time | ml/l |
|---|----------------|--------------------|--------------------|
| Disinfection of instruments | 1.0 % | 30 min. | 10 ml/l |
| Bactericidal and levurocidal acc. DGHM ²⁾ /VAH ³⁾ | 1.5 % | 15 min. | 15 ml/l |
| EN 13727, 13624, 14561, 14562 | | | |
| Virucidal: enveloped viruses (incl. HBV, HCV, HIV) ¹⁾ | 1.0 % | 15 min. | 10 ml/l |
| Virucidal, enveloped and non-enveloped virus | 2.0 % 4.0 % | 30 min. 15 min. | 20 ml/l 40 ml/l |
| Vaccinia-virus | 1.0 % | 5 min. | 10 ml/l |
| Rotavirus | 0.25 % | 5 min. | 2.5 ml/l |
| Polyomavirus | 1.0 % 2.0 % | 30 min. 15 min. | 10 ml/l 20 ml/l |
| Adenovirus | 1.0 % | 5 min. | 10 ml/l |
| Poliovirus | 2.0 % 4.0 % | 30 min. 15 min. | 20 ml/l 40 ml/l |
| Mycobactericidal (M. terrae, M. avium) EN 14348, 14563 | 2.0 % 4.0 % | 30 min. 15 min. | 20 ml/l 40 ml/l |
| Sporicidal | 17 % | - 6 h | 170 ml/l |
| EN 14347 (B. subtilis and B. cereus) | 15 % | - 8 h | 150 ml/l |

PRODUCT SIZE

1000 ml bottle

5 l canister

REF

3891950, 18940

3892212, 18941

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate Ready-to-use solution

ca. 4.5 ca. 5
ca. 1.02
green light-green



Virucidal & mycobactericidal

Helipur® H plus N – Composition:

100 g solution contains: Glutaral 12.0 g, 2-Propanol 7.5 g, Ethylhexanol 0.5 g. Excipients: Ingredients in accordance with the Regulations for Detergents EG 648/2004 | 5–15% anionic surfactants, < 5% nonionic surfactants, Perfume (Limonene) | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

1) acc. RKI 01/2004 2) DGHM = German Society of Hygiene and Microbiology 3) VAH = Association of Applied Hygiene

MANUAL CLEANER & DISINFECTANT

Helipur® ...cleaning and disinfection of heat resistant medical devices

PROPERTIES

- Highly effective liquid disinfection concentrate
- Suitable for surgical instruments made of stainless steel, glass and ceramics
- Cleaning and disinfection in one step; contaminated instruments can be soaked directly in the ready-to-use working solution. Manual pre-cleaning can be omitted.
- Aldehyde-free
- Economic
- Effective against bacteria (incl. MRSA and TbB), fungi and enveloped viruses (incl. HBV, HCV, HIV) and Polyoma- and Adenovirus.
- Can be used in ultrasonic baths
- DGHM¹⁾/VAH³⁾- and RKI⁴⁾-listed

INSTRUCTIONS FOR USE

After soaking in ready-to-use Helipur® working solution, rinse the instruments thoroughly under cold running tap water. Perform the final rinse in demineralized or distilled water. Dry instruments with an absorbent, lint-free cloth towel.

Prior to the first use of Helipur® the instrument bath shall be cleaned with water and Helizyme, to remove potential residues of previously used products.

| PRODUCT SIZE | REF |
|----------------|-------|
| 1000 ml bottle | 18894 |
| 5 l canister | 18895 |

| Physico-Chemical Data | Concentrate | Ready-to-use solution |
|--------------------------------------|-------------|-----------------------|
| pH-value (20 °C): | 11 ± 0,3 | 9.5 ± 0.5 |
| Density (20 °C, g/cm ³): | ca. 1.09 | |
| Appearance | red-brown | |

MICROBIOLOGICAL EFFICACY

| Micro-organism | Conc. | Contact time | ml/l |
|---|-------|--------------|---------|
| Disinfection of instruments (incl. mycobacteria, yeasts; DGHM 09/2001 corr. EN 14561, EN 14562, EN 14563) | 1.5% | 15 min. | 15 ml/l |
| | 3.0% | 5 min. | 30 ml/l |
| Fungi (A. brasiliensis acc. EN 14562) | 1.5% | 1 h | 15 ml/l |
| | 3% | 15 min. | 30 ml/l |
| Enveloped viruses (incl. HBV, HCV, HIV) ²⁾ | 1.0% | 15 min. | 10 ml/l |
| Polyomavirus ⁵⁾ | 1.5% | 5 min. | 15 ml/l |
| Adenovirus ⁶⁾ | 2.0% | 1 h | 20 ml/l |

CAUTION

Helipur® is not suitable for reprocessing heat sensitive materials, in particular flexible endoscopes.



Excellent cleaning

Helipur® – Composition:

100 g solution contains Chlorocresol 8.5 g, Chlorofen 4.8 g, Biphenyl-2-ol 4.0 g, anionic surfactants, aliphatic alcohols, complexing agents, solvents, corrosion inhibitors, perfume, colourants. Ingredients in accordance with the Regulations for Detergents EG 648/2004 >30% anionic surfactants, <5% phosphonates, perfume, colourants. (Benzyl Salicylate, Coumarin, Eugenol, Linalool) Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

1) DGHM = German Society of Hygiene and Microbiology 2) limited virucidal activity, RKI 01/2004, DVV suspension test 3) VAH = Association of Applied Hygiene 4) RKI = Robert Koch-Institute

5) DVV / RKI suspension test 6) EN 14476, DVV/RKI suspension test

DECENTRALIZED AUTOMATIC DOSING UNIT

Melseptomat® G ...with the key to success

FEATURES

- Single button operation
- Extremely robust stainless steel housing (1.5 mm steel sheet) with vandal-proof operating keyboard
- The operating status and the «empty» and «defect» warnings are indicated with the green-red ring light (LED) integrated in the operator button
- Removable, autoclavable mixing bowl
- Selectable dosage using key switch
- Dosage pre-selection settings: 0.2 ‰, 0.5 ‰, 1 ‰, 1.5 ‰, 2 ‰, 4 ‰
- Release amount of the ready-to-use diluted solution, selectable between 1 and 50 litres. The dosing process can be always interrupted by pressing the operator button.
- Calibrate dosing without opening the device
- Positive dosing error: max. + 6.5 ‰
- Sensor-monitorization of the entire dosing process
- Automatic shut-off in case of lack of concentrate or water respectively or due to concentrate flow interruption

APPLICATION INSTRUCTIONS

At the touch of a button, Melseptomat® G produces an accurate dosage of ready-to-use disinfection or cleaning solution made of concentrate and tap water. Moreover, the dosing process is monitored by sensors. Applicable in all areas of hospitals, food processing or industry where precise dosing is required.

UNIT OF SALE

Melseptomat® G, Decentralized automatic dosing unit,
Calibration set for Melseptomat® G

| PRODUCT SIZE | REF |
|------------------------------------|---------|
| Decentralised dosing device | 3908420 |
| Calibration set for Melseptomat® G | 3908419 |

TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Release amount | max. 400 l /hour |
| Amount pre-selection | 1 – 50 l |
| Minimum release amount | 1 litre |
| Dosage pre-selection | 0.25 – 0.5 – 1 – 1.5 – 2 – 4 ‰ |
| Positive dosing error | max. + 6.5 ‰ |
| Water connection | 1/2" outside threading |
| Water inlet pressure | 0.5 bar – 6 bar |
| Power supply | through the power-cube transformer Primary voltage: 90-264V, ~50-60 Hz; Secondary voltage: 24 VDC; 1A |
| Power | max. 24 VA |
| Dimensions (Width x Height x Depth) | 375 mm x 370 mm x 150 mm |
| Suction lance | with connection to a 5-litre can with VS DIN 50 threads |
| Outlet hose | max. length 1 metre |



Compliant with RKI guideline¹

¹"Anforderungen an Gestaltung, Eigenschaften und Betrieb von dezentralen Desinfektionsmittel-Dosiergeräten." Richtlinie der Bundesanstalt für Materialforschung und -prüfung, des Robert Koch-Institutes und der Kommission für Krankenhaushygiene und Infektionsprävention. Bundesgesundheitsbl - Gesundheitsforsch - Gesundheitsschutz 2004 · 47:67-72.

You Tube Watch Melseptomat® G installation, calibration, operation on www.youtube.com. Just browse for «Melseptomat® G»

AUTOMATED REPROCESSING

Modern washer disinfectors must conform to EN ISO 15883 standards. As opposed to manual reprocessing, automated reprocessing must be validated.

If the process is near or even beyond the process safety limit, high-value surgical instruments are at risk of being damaged and patient safety is endangered by inadequately cleaned instruments.

To handle such complex technologies, to preserve material properties and to optimize your automated cleaning process to safeguard patients B. Braun is a reliable partner, as B. Braun has core competence/know-how in all the following relevant segments:

- Instrument manufacturing, research and development
- Instrument reprocessing (from simple manual preparation to CSSD management)
- Research, development, manufacturing and application of disinfectant and cleansing products for manual and automated reprocessing
- Infection control consulting, process optimization and process validation
- Further training (specialist courses for sterilization assistants)

OVERVIEW

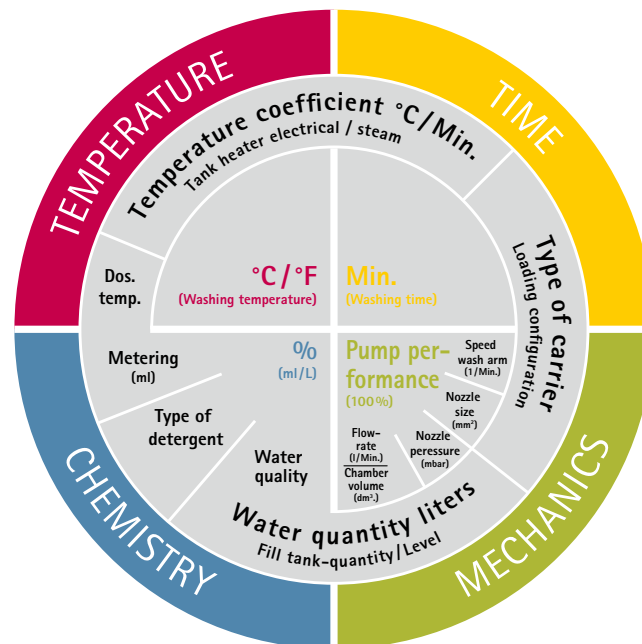
| Process | Alkaline | Neutral/enzymatic | Neutral/enzymatic |
|---|--|--|--|
| pH value | pH > 10 | pH = 7 | pH = 7 |
| Cleaning | Helimatic® Cleaner alkaline Helimatic® Cleaner MA | Helimatic® Cleaner neutral Helimatic® Cleaner enzymatic | Helimatic® Cleaner neutral Helimatic® Cleaner enzymatic |
| Neutralising | Helimatic® Neutralizer C Helimatic® Neutralizer forte | Helimatic® Neutralizer C Helimatic® Neutralizer forte | |
| Disinfection | Thermal | Thermal | Chemo-thermal Helimatic® Disinfectant |
| Final rinse | Helimatic® Rinse neutral | Helimatic® Rinse neutral | |
| Anaesthesia equipment | ✓ | ✓ | |
| Flexible endoscopes | | | ✓ |
| Rigid endoscopes | ✓ | ✓ | |
| Micro-surgical instruments | ✓ | ✓ | |
| Minimally invasive surgical instruments | ✓ | ✓ | |
| Surgical instruments | ✓ | ✓ | |
| Operating theatre shoes | | ✓ | |
| Laboratory glassware | ✓ | | |
| Beds, containers | | ✓ | |
| Infant feeding bottles | ✓ | | |

THE 5 ELEMENTS TO SUCCESS

The Sinner's circle of automated reprocessing

The Sinner's circle describes the interaction of all influencing parameters in any cleaning process. Originally the Sinner's circle was defined by the four elements chemistry, mechanics, temperature and time. Today a fifth element is considered important – the water.

These five parameters determine the success of the cleaning processes. The parameters are dependent from each other and have to be perfectly harmonized in their sum to create a sustainable and stable cleaning process.



CLEANING TIME

Is defined as the parameter which controls the duration of the cleaning process. The longer the time the more contamination is going to be removed.

TEMPERATURE

The temperature influences the activity of cleaner. Here it has to be taken into account that cleaner often contain enzymes and tensides. Enzymes often have their highest activity level between 45 and 55 °C. Over 60 °C this activity may decrease significantly. Tensides have the tendency to build up foam which may stop the machine immediately. To avoid foam formation the cleaner should always be dosed at temperatures of about 30 to 35 °C.

CHEMISTRY

The chemistry is defined by the composition. There is a wide range of substances available. The most popular cleaners are made of mix of tensides and enzymes (mostly proteases). The pH is lightly alkaline between 9.5 and 10.5. But also acidic, neutral and highly alkaline cleaners are on market. Praxis has shown that mildly alkaline cleaners show the best cleaning

performance in combination with the most gentle material compatibility.

MECHANICS

The mechanical action is the most important parameter of all. The success of the cleaning process is mostly influenced by the water pressure, the flow rate, the movement of the washer wings and the room configuration e.g. the loading. As a result the mechanic has to be defined as the leading factor to be harmonized with the other four parameters.

WATER

In older definitions of the Sinner's circle the water has not been taken into account. But latest research shows that water has a huge impact on the cleaning process. The water quality influences the activity of the chemistry. The harder the water – defined in mmol/litre – the more chemistry has to be dosed into the cleaning process. The water also defines the conductivity. A lower conductivity at the end of the cleaning process means less water stains and silicate residues on the surface of the instruments.

AUTOMATIC ALKALINE CLEANER

Helimatic® Cleaner alkaline ...in line with RKI recommendation to minimise the risk of transmitting CJD/vCJD

PROPERTIES

- Helimatic® Cleaner alkaline is a powerful alkaline liquid cleaner for alkaline resistant surgical instruments and stainless-steel equipment, anesthesia accessories, baby's bottles, synthetic containers, rigid endoscopes, MIS instruments, laboratory glassware and surgical shoes
- Contains a special surfactant system to face the new challenges of hygienic safety
- Offers an optimised cleaning of proteins, lipids, body fluids and other organic compounds
- Can also be used in difficult instrument treatment situations
- Phosphate-free
- Silicate-free
- Contains corrosion inhibitors
- Low-foaming even in cases of high organic loading

DOSAGE AND INSTRUCTIONS FOR USE

Helimatic® Cleaner alkaline is used in a concentration between 0.3% and 0.8%. The use and dosage of Helimatic® Cleaner alkaline must be determined by the user to suit the individual reprocessing requirements in the CSSD. The program and the dosing in an automated washer and disinfecter must be adjusted carefully and controlled regarding material compatibility as well as biocompatibility before the process can be released for routine reprocessing of instruments. Helimatic® Neutralizer C or Helimatic® Neutralizer forte are suitable for neutralization of alkaline residues.

| PRODUCT SIZE | REF |
|-----------------|--------------|
| 5 l canister | 18724, 18731 |
| 200 l barrel | 18774 |
| 600 l container | 18796 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 12.8
ca. 1.09
clear, pale yellow

Ready-to-use solution

ca. 11



pH >10, surfactants

Helimatic® Cleaner alkaline – Composition:

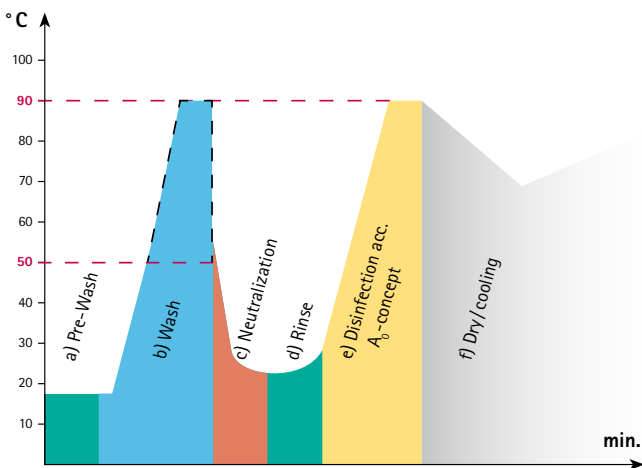
contains 5 - 15% complexing agents, < 5% anionic surfactants, < 5% non-ionic surfactants, < 5% polycarboxylates, corrosion inhibitors, excipients in alkaline formulation. Ingredients in accordance with the Regulations for Detergents EG 648/2004 < 5% anionic surfactants, < 5% non-ionic surfactants, 5% NTA, <5% phosphonate < 5% polycarboxylates | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

EXAMPLE FOR AN AUTOMATED CYCLE:

Before starting the automated reprocessing cleaning agents and disinfectants from the manual pre-treatment must first be rinsed completely from the instruments and equipment. This program proposal may vary depending on the situation in practice!

Not suitable for aluminum!

PROGRAM STANDARD-INSTRUMENTS



Remark

This is only an example and the process time depends on the machine type.

a) Pre-Wash

Drain tank completely
 Fill tank with cold water without any additives
 5 min. pumping time with max. pump performance
 Drain tank

b) Wash

Fill tank with cold water without any additives (preferably fully deionized water)
 Add Helimatic® Cleaner alkaline 0.3 – 0.8% (3 – 8 ml/l)
 Heat up to 50 – 90 °C
 10 min. pumping time with max. pump performance
 Drain tank

c) Neutralization

Fill tank with cold water without any additives (preferably fully deionized water)
 Add Helimatic® Neutralizer C 0.05 – 0.3% (0.5 – 3 ml/l) or Helimatic® Neutralizer forte 0.1 – 0.2% (1 – 2 ml/l)
 1 min. pumping time with max. pump performance
 Drain tank

d) Rinse

Fill tank with cold water without any additives (preferably fully deionized water)
 1 min. pumping time with max. pump performance
 Drain tank

e) Disinfection acc. A0-concept

Fill tank with fully deionized water
 Heat up and pumping time with max. pump performance after A0-concept (e.g. ≥ 90 °C – 5 min.)
 Drain tank

f) Dry/cooling

Time and temperature as specified by the manufacturer

AUTOMATIC MILD ALKALINE CLEANER

Helimatic® Cleaner MA ...best practice

PROPERTIES

- Helimatic® Cleaner MA is a powerful mild alkaline liquid cleaner for surgical instruments and stainless-steel equipment, anesthesia accessories, baby's bottles, synthetic containers, flexible and rigid endoscopes, MIS instruments, laboratory glassware and surgical shoes
- Supports the removal of biofilm and contains a special surfactant system to remove dried and denatured blood residues
- Faces the new challenges of hygienic safety while being gentle to the sensitives instruments and equipment
- Offers an optimised cleaning of proteins, lipids, body fluids and other organic compounds and inhibits the redeposition
- Can also be used in difficult instrument treatment situations
- Phosphate- and Silicate-free
- Contains corrosion inhibitors
- Low-foaming even in cases of high organic loading
- Suitable for all established washer and disinfectors

DOSAGE AND INSTRUCTIONS FOR USE

Helimatic® Cleaner MA is used in a concentration between 0.2% and 1.0%. The use and dosage of Helimatic® Cleaner MA must be determined by the user to suit the individual reprocessing requirements in the CSSD. The program and the dosing in an automated washer and disinfectant must be adjusted carefully and controlled regarding material compatibility as well as biocompatibility before the process can be released for routine reprocessing of instruments. Helimatic® Cleaner MA can be used without or with neutralizing agent (Helimatic® Neutralizer C or Helimatic® Neutralizer forte).

NEW GOLD STANDARD

Helimatic Cleaner MA was in a recently published doctoral thesis¹⁾ rated as a highly excellent cleaner with outstanding gentle material properties. Helimatic Cleaner MA was able to distinguish itself against neodisher® MediClean forte. Therefore we are sure to offer a new gold standard to the automated reprocessing market of surgical instruments.

| PRODUCT SIZE | REF |
|------------------|-------|
| 5 l canister | 19678 |
| 10 l canister | 19679 |
| 220 kg barrel | 19680 |
| 600 kg container | 19681 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 10.5
ca. 1.09
clear, clear brownish

Ready-to-use solution

ca. 10



Innovative combination of enzymes and surfactants

Helimatic® Cleaner alkaline – Composition:

< 5% anionic surfactants, < 5% non-ionic surfactants, < 5% polycarboxylates, < 5% phosphonates, corrosion inhibitors, enzymes, excipients in alkaline formulation. Ingredients in accordance with the Regulations for Detergents EG 648/2004 | < 5% anionic surfactants, < 5% non-ionic surfactants, < 5% phosphonate < 5% polycarboxylates | Labelling of dangerous goods: see material safety data sheet (MSDS). Caution: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

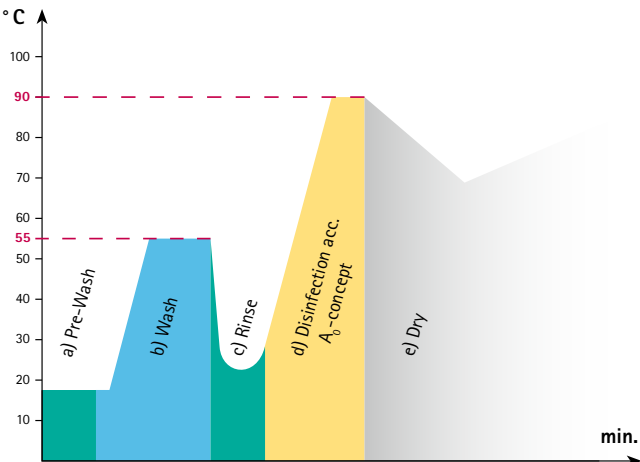
1) Dr. Gerhard Kirmse – Einflussfaktoren auf die maschinelle Reinigung von Standardinstrumenten; 2015 - ISBN 9783863761370

EXAMPLE FOR AN AUTOMATED CYCLE:

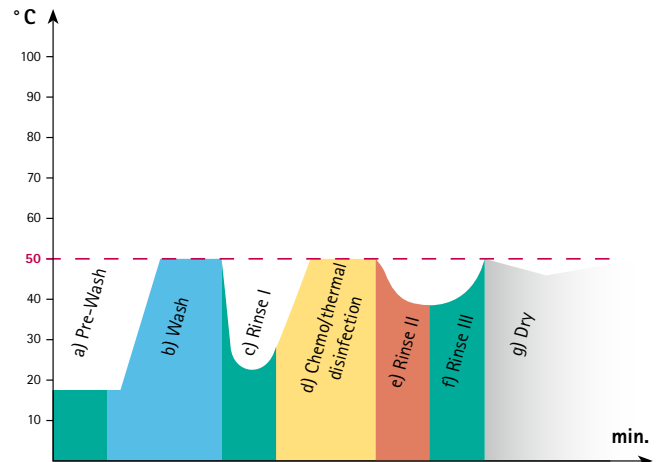
Before starting the automated reprocessing cleaning agents and disinfectants from the manual pre-treatment must first be rinsed completely from the instruments and equipment. This program proposal may vary depending on the situation in practice!

Remark: This is only an example and the process time depends on the machine type.

PROGRAM STANDARD-INSTRUMENTS



PROGRAMM FOR FLEXIBLE ENDOSCOPES



a) Pre-Wash

Drain tank completely
Fill tank with cold water without any additives
5 min. pumping time with max. pump performance
Drain tank

b) Wash

Fill tank with cold water without any additives (preferably fully deionized water)
Heat up to 35 °C
Add Helimatic® Cleaner MA 0.2 – 1% (2 – 10 ml/l)
Heat up to 50 – 60 °C
10 min. pumping time with max. pump performance
Drain tank

c) Rinse

Fill tank with cold water without any additives (preferably fully deionized water)
1 min. pumping time with max. pump performance
Drain tank

d) Disinfection acc. A0-concept

Fill tank with fully deionized water
Heat up and pumping time with max. pump performance after A0-concept (e.g. ≥ 90 °C – 5 min.)
Drain tank

e) Dry/cooling

Time and temperature as specified by the manufacturer

a) Pre-Wash

Drain tank completely
Fill tank with cold water without any additives
3 min. pumping time with max. pump performance
Drain tank

b) Wash

Fill tank with cold or cold/warm water (< 50 °C) without any additives
Heat up to 35 °C
Add Helimatic Cleaner MA 0.5% (5 ml/l)
Heat up to 50 °C
7 min. pumping time with max. pump performance
Drain tank

c) Rinse I

Fill tank with cold or cold/warm water (< 50 °C) without any additives.
1 min. pumping time with max. pump performance. Drain tank

d) Chemo/thermal disinfection

Fill tank with cold or cold/warm water (< 50 °C) without any additives.
Add Helimatic Disinfectant
1% (10 ml/l) Heat up to 55 °C – 60 °C. 5 min. pumping time with max. pump performance.
Drain tank

e) Rinse II

Fill tank with fully deionized water (without any microbiological contaminations to avoid recontamination).
1 min. pumping time with max. pump performance.
Drain tank

f) Rinse III

Fill tank with fully deionized water (without any microbiological contaminations to avoid recontamination).
1 min. pumping time with max. pump performance. Heat up to 50 – 55 °C.
Drain tank

g) Dry / cooling

Time and temperature as specified by the manufacturer

AUTOMATIC NEUTRAL CLEANER

Helimatic® Cleaner neutral ...material friendly

PROPERTIES

- For automated reprocessing of heat sensitive and heat resistant medical devices, surgical instruments, flexible endoscopes, instrument containers, anaesthesia equipment and nursing trolleys
- Possesses excellent cleaning capabilities, particularly against blood and protein contaminations including inaccessible places, such as found in MIS-instruments
- Incorporates a foam-free mode of action at all ranges of temperature, as well as under cold water, high turbulences and protein loading conditions
- Solvent free, enzyme free, non-flammable, non-irritant and therefore extremely safe to handle
- Possesses a broad material compatibility including heat sensitive materials e.g.: latex, rubber, silicon, plastic, glass, metals and coloured anodized aluminium

DOSAGE AND INSTRUCTIONS FOR USE

For automated reprocessing in a washer and disinfecter, Helimatic® Cleaner neutral is used in a concentration between 0.1 and 0.5 %.

An additional step of neutralisation is not necessary. The adjustment of the concentration takes place via dosage pumps (see manufacturer's instructions).

A final rinse with deionized water prevents stains on metallic surfaces.

Cleaning of nursing trolleys:

Helimatic® Cleaner neutral can be used in combination with the pH-neutral clear rinse, Helimatic Rinse neutral.

| PRODUCT SIZE | REF |
|-----------------|-------|
| 5 l canister | 18519 |
| 200 l barrel | 18521 |
| 600 l container | 18797 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 6
ca. 1.08
clear, liquid

Ready-to-use solution

ca. 7



Ternary surfactant system,
patented

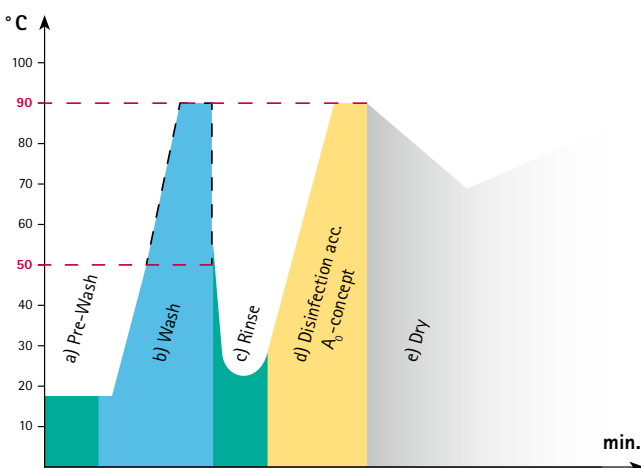
Helimatic® Cleaner neutral – Composition:

Surfactants, complexing agents, corrosion inhibitors, preservatives, perfume, expiants | Ingredients in accordance with the Regulations for Detergents EG 648/2004 <5% anionic surfactants, <5% nonionic surfactants, 5% NTA, <5% phosphonate, <5% polycarboxylate, glutaral, perfume | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

EXAMPLE FOR AN AUTOMATED CYCLE:

Before starting the automated reprocessing cleaning agents and disinfectants from the manual pre-treatment must first be rinsed completely from the instruments and equipment. This program proposal may vary depending on the situation in practice!

PROGRAM STANDARD-INSTRUMENTS



Remark

This is only an example and the process time depends on the machine type.

a) Pre-Wash

Drain tank completely
Fill tank with cold water without any additives
5 min. pumping time with max. pump performance
Drain tank

b) Wash

Fill tank with cold water without any additives (preferably fully deionized water)
Add Helimatic® Cleaner neutral 0.1 – 0.5% (1 – 5 ml/l)
Heat up to 50 – 90 °C
10 min. pumping time with max. pump performance
Drain tank

c) Rinse

Fill tank with cold water without any additives (preferably fully deionized water)
1 min. pumping time with max. pump performance
Drain tank

d) Disinfection acc. A₀-concept

Fill tank with fully deionized water
Heat up and pumping time with max. pump performance after A₀-concept (e.g. ≥ 90 °C – 5 min.)
Drain tank

e) Dry/cooling

Time and temperature as specified by the manufacturer

AUTOMATIC ENZYMATIC CLEANER

Helimatic® Cleaner enzymatic ...for flexible endoscopes and medical devices

PROPERTIES

- For automated cleaning of flexible endoscopes and heat sensitive medical devices
- For automatic reprocessing of instruments and anaesthesia equipment
- Supports the removal of biofilm
- Easily removes dried on blood and secretions
- Highly effective with excellent material compatibility
- Uses a particularly efficient and innovative combination of ingredients to optimise cleaning performance
- Has an outstanding cleaning performance, particularly where blood and protein contaminants are concerned, including inaccessible areas
- Incorporates a foam free mode of action at all ranges of temperature, as well as under cold water, high turbulences and protein loading conditions
- Has a high level of material compatibility especially with plastics and metallic surfaces

DOSAGE AND INSTRUCTIONS FOR USE

The cleaning step plays a key role in thermo chemical processing. The success of the processing depends on thorough cleaning in order that the flexible endoscope is free of secretion- and protein-residuals. This prevents the incrustation of any remaining contamination during the subsequent disinfecting stage and drying phase.

Helimatic® Cleaner enzymatic was developed to meet these requirements. This high-performance product has a neutral pH value and ensures that the best possible cleaning result is achieved, and yet it is particularly suited to the preparation of delicate instruments.

Helimatic® Cleaner enzymatic demonstrates excellent cleaning power which is normally achieved by alkaline formulations only.

| PRODUCT SIZE | REF |
|-----------------|-------|
| 5 l canister | 18558 |
| 200 l barrel | 18560 |
| 600 l container | 18740 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

6
ca 1.07
clear, liquid

Ready-to-use solution

pH-neutral
ca. 1.0



Highly active enzyme complex

Helimatic® Cleaner enzymatic – Composition:

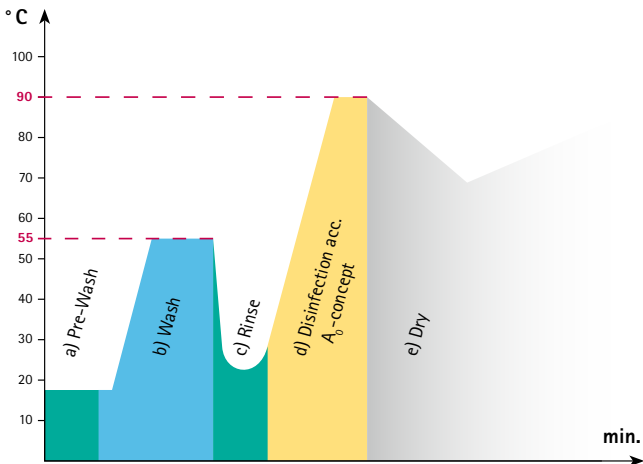
< 5% anionic surfactants, < 5% non-ionic surfactants, enzymes, salts of organic acids, solvents, dispersion agent, corrosion inhibitors, preservatives, excipients. Ingredients in accordance with the Regulations for Detergents EG 648/2004 < 5% anionic surfactants, < 5% non-ionic surfactants, < 5% polycarboxylate, methylparabene, enzymes Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

EXAMPLE FOR AN AUTOMATED CYCLE:

Before starting the automated reprocessing cleaning agents and disinfectants from the manual pre-treatment must first be rinsed completely from the instruments and equipment. This program proposal may vary depending on the situation in practice!

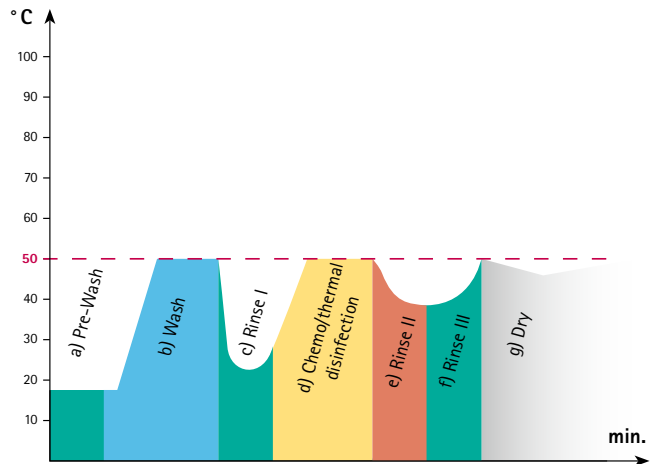
Remark: This is only an example and the process time depends on the machine type.

PROGRAM STANDARD-INSTRUMENTS



- a) Pre-Wash**
 Drain tank completely
 Fill tank with cold water without any additives
 5 min. pumping time with max. pump performance
 Drain tank
- b) Wash**
 Fill tank with cold water without any additives (preferably fully deionized water)
 Add Helimatic® Cleaner enzymatic 0.1 – 0.5% (1 – 5 ml/l).
 Heat up to 50 – 60 °C
 10 min. pumping time with max. pump performance
 Drain tank
- c) Rinse**
 Fill tank with cold water without any additives (preferably fully deionized water)
 1 min. pumping time with max. pump performance
 Drain tank
- d) Disinfection acc. A0-concept**
 Fill tank with fully deionized water with max. pump performance
 Heat up and pumping time with max. pump performance after A0-concept (e.g. ≥ 90 °C – 5 min.)
 Drain tank
- e) Dry/cooling**
 Time and temperature as specified by the manufacturer

PROGRAMM FOR FLEXIBLE ENDOSCOPES



- a) Pre-Wash**
 Drain tank completely
 Fill tank with cold water without any additives
 3 min. pumping time with max. pump performance
 Drain tank
- b) Wash**
 Fill tank with cold or cold/warm water (< 50 °C) without any additives
 Add Helimatic Cleaner enzymatic 0.5% (5 ml/l)
 Heat up to 50 °C
 7 min. pumping time with max. pump performance
 Drain tank
- c) Rinse I**
 Fill tank with cold or cold/warm water (< 50 °C) without any additives.
 1 min. pumping time with max. pump performance.
 Drain tank
- d) Chemo/thermal disinfection**
 Fill tank with cold or cold/warm water (< 50 °C) without any additives.
 Add Helimatic Disinfectant 1% (10 ml/l) Heat up to 55 °C – 60 °C. 5 min. pumping time with max. pump performance.
 Drain tank
- e) Rinse II**
 Fill tank with fully deionized water (without any microbiological contaminations to avoid recontamination).
 1 min. pumping time with max. pump performance.
 Drain tank
- f) Rinse III**
 Fill tank with fully deionized water (without any microbiological contaminations to avoid recontamination).
 1 min. pumping time with max. pump performance. Heat up to 50 – 55 °C.
 Drain tank
- g) Dry / cooling**
 Time and temperature as specified by the manufacturer

AUTOMATIC NEUTRALISER

Helimatic® Neutralizer C ...citric acid

PROPERTIES

- Helimatic® Neutralizer C is a liquid neutraliser containing pharmaceutical grade citric acid
- It is above all used for the neutralisation of alkaline residues during automatic reprocessing of instruments
- Free of surfactants
- Good material compatibility

DOSAGE AND INSTRUCTIONS FOR USE

Helimatic® Neutralizer C is a liquid neutraliser containing citric acid which is used for the neutralisation of alkaline residues during machine processing of instruments. It is used in a concentration between 0.05% and 0.3%.

The use and dosage of Helimatic® Neutralizer C must be determined by the user to suit the individual reprocessing requirements in the CSSD. The program and the dosing in an automated washer and disinfectant must be adjusted carefully and controlled regarding material compatibility as well as biocompatibility before the process can be released for routine reprocessing of instruments.

Even in a process using a pH-neutral cleaner, it may be advisable to add an acidic neutralizer to the first intermediate rinse in order to prevent deposits (e.g. in cases where the water used has a high salt content)

Acidic neutralizer carried over into the final rinse in a washer in disinfectant followed by autoclaving may cause grey to black discoloration of surgical instruments made of stainless steel.

| PRODUCT SIZE | REF |
|-----------------|--------------|
| 5 l canister | 18725, 18732 |
| 200 l barrel | 18772 |
| 600 l container | 18798 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 2.5
ca 1.12
clear, liquid

Helimatic® Neutralizer C – Composition:

15 – 30% Citric acid, Ingredients in accordance with the Regulations for Detergents EG 648/2004 n.a. Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.



Free of phosphates and surfactants

AUTOMATIC NEUTRALISER

Helimatic® Neutralizer forte ...phosphoric acid

PROPERTIES

- Helimatic® Neutralizer forte is a liquid neutraliser containing phosphoric acid
- It is above all used for the neutralisation of alkaline residues during machine processing of instruments
- Free of surfactants
- Good material compatibility

DOSAGE AND INSTRUCTIONS FOR USE

Helimatic® Neutralizer forte is a liquid neutraliser containing phosphoric acid which is used for the neutralisation of alkaline residues during machine processing of instruments. It is used in a concentration between 0.1 % and 0.2 %.

The use and dosage of Helimatic® Neutralizer forte must be determined by the user to suit the individual reprocessing requirements in the CSSD. The program and the dosing in an automated washer and disinfectant must be adjusted carefully and controlled regarding material compatibility as well as biocompatibility before the process can be released for routine reprocessing of instruments.

Even in a process using a pH-neutral cleaner, it may be advisable to add an acidic neutralizer to the first intermediate rinse in order to prevent deposits (e.g. in cases where the water used has a high salt content)

Acidic neutralizer carried over into the final rinse in a washer in disinfectant followed by autoclaving may cause grey to black discolouration of surgical instruments made of stainless steel. Overdosing of phosphoric acid may cause corrosion.

| PRODUCT SIZE | REF |
|-----------------|-------|
| 5 l canister | 18861 |
| 200 l barrel | 18863 |
| 600 l container | 18864 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 2.1
ca. 1.0
clear, liquid

Helimatic® Neutralizer forte – Composition:

> 30% phosphoric acid, excipients, Ingredients in accordance with the Regulations for Detergents EG 648/2004, n.a., Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.



Free of surfactants

AUTOMATIC NEUTRAL DRYING AID

Helimatic® Rinse neutral ...fast and stain free drying

PROPERTIES

- For automated reprocessing of surgical instruments, bed frames, nursing trollies and containers
- It is used for the final rinse and ensures a stain free drying of metallic and sealed surfaces
- Contributes to a stain free rinse and an optimal drying result
- Due to its foam-free characteristic, it is suitable in sectors with high turbulences
- Non-corrosive and pH-neutral
- Possesses a broad material compatibility including heat sensitive materials e.g.: latex, rubber, silicon, plastic, glass, metals and coloured anodized aluminium

CAUTION

Do not use Helimatic® Rinse neutral in an automated washer/disinfector dedicated for the chemo-thermal reprocessing of flexible endoscopes.

DOSAGE AND INSTRUCTIONS FOR USE

For automated reprocessing in a washer and disinfector Helimatic® Rinse neutral is used in the final rinse at a concentration of 0.05 – 0.2%.

The adjustment of the concentration takes place via dosage pumps (see manufacturer's instructions).

In urgent cases, where a quick availability of the treated instruments or the equipment is necessary, a process temperature of at least 80 °C is recommended.

| PRODUCT SIZE | REF |
|--------------|-------|
| 5 l canister | 18568 |
| 200 l barrel | 18773 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 7
ca. 1.01
clear, liquid

Ready-to-use solution

ca. 7



Helimatic® Rinse neutral – Composition:

non-ionic surfactants, alcohols, excipients. Ingredients in accordance with the Regulations for Detergents EG 648/2004 <5% nonionic surfactants | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

AUTOMATIC DISINFECTANT

Helimatic® Disinfectant ...for chemo thermal reprocessing of flexible endoscopes & medical devices

PROPERTIES

- For automated disinfection of flexible endoscopes and heat sensitive medical devices
- Broad efficacy spectrum
- Effective and economic
- Has a high level of material compatibility especially with plastics and metallic surfaces

MICROBIOLOGICAL EFFICACY

Microbiocidal performance of Helimatic® Disinfectant (in vitro)

| Test organism / Virus | Conc. | Time | Temp. |
|---|-------|--------|-------|
| Bacteria (acc. EN 13727, EN 14563, E. faecium) | 1.0% | 5 min. | 55 °C |
| Fungi (acc. EN 13624, EN 14562) | 1.0% | 5 min. | 55 °C |
| Mycobacteria (acc. EN 14348, EN 14563) | 1.0% | 5 min. | 55 °C |
| Enveloped and non enveloped viruses (acc. EN 14476, Parvovirus) | 1.0% | 5 min. | 55 °C |

Expert reports are available on demand.

Reprocessing program proposal for flexible endoscopes: see page 25.

| PRODUCT SIZE | REF |
|--------------|-------|
| 5 l canister | 18562 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

6
ca 1.07
clear, liquid

Ready-to-use solution

pH-neutral
ca. 1.0

DOSAGE AND INSTRUCTIONS FOR USE

The cleaning step plays a key role in thermo chemical processing. The success of the processing depends on thorough cleaning in order that the flexible endoscope is free of secretion- and protein-residuals. This prevents the incrustation of any remaining contamination during the subsequent disinfecting stage and drying phase.

REPROCESSING OF FLEXIBLE ENDOSCOPES

- Wear gloves and personal protective equipment, follow the reprocessing recommendations of the endoscope manufacturer
- Pre cleaning in the examination room: immediately after the examination (Helizyme, enzymatic cleaner)
- Manual cleaning in the reprocessing room: clean the channels and other parts of the endoscope with special cleaning brushes (Helizyme, enzymatic cleaner).
- Rinsing: Rinse with water
- Machine reprocessing in a washer-disinfector for flexible endoscopes.
- Allow to dry completely.
- Low temperature sterilization: if available and required
- Store in a cabinet recommended by the endoscope manufacturer.



Highly effective

Helimatic® Disinfectant- Composition:

100 g solution contains 20 g glutaral, solvents, salts of organic acids, corrosion inhibitors, excipients. Ingredients in accordance with the Regulations for Detergents EG 648/2004, < 5% phosphonate | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

AUTOMATIC CLEANER & RINSE FOR BED PAN WASHERS

Helimatic® Latriniser ...shiny and clean bedpans

PROPERTIES

- For automatic bed pan washer disinfectors with thermal disinfection of bed pans, urinals
- Stain free drying with shiny surfaces
- Prevents limescale in steam generators, pipework and nozzles even with very hard water
- For optimised, spot-free drying
- Suitable for acid-resistant bedpan washer disinfectors.
- High level material tolerance towards special steel, aluminium, plastics and glass

DOSAGE AND INSTRUCTIONS FOR USE

Helimatic® Latriniser is used at a concentration of 3 – 5 ml /l with a water hardness of < 15 °dH (<27 °f)
5 – 10 ml/l

with a water hardness of > 15 °dH (>27 °f)
Special combination based on organic acids and surfactants.

| PRODUCT SIZE | REF |
|--------------|--------------|
| 5 l canister | 18823, 18824 |
| 200 l barrel | 18944 |



Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 1.8
ca. 1.07
clear, liquid

Ready-to-use solution

ca. 3–5
ca. 1.04

Effective and economic

Helimatic® Latriniser– Composition:

nonionic surfactants, organic acids, solubilizer, preservatives, excipients | Ingredients in accordance with the Regulations for Detergents EG 648/2004 | 5 – 15% nonionic surfactants, preservatives, phenoxyethanol
Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

REFILLING SYSTEM FOR AUTOMATIC WASHER-DISINFECTORS

Heli-Dos® ...tested and delivered ready for connections and ready to mount

PROPERTIES

- Automatic refilling of upstream containers to deliver continuously process media from 600 litres bulk containers or 200 litres barrels to automated washer disinfectors
- Waste, time and cost saving compared to the use of conventional 5 or 10 litres canisters
- Easy to operate – essential for routine tasks!
- Economical
- High level of reliability
- Suitable for Helimatic® reprocessing agents
- Not suitable for processing agents:
 - that are highly flammable
 - based on peracetic acid or hydrogen peroxide

DOSAGE AND INSTRUCTIONS FOR USE

Automatic operation.

One-man operation; all the sensor and actuator states can be read off both the upstream container and the output unit.

Delivers until the pump draws in air. No need for the time consuming task of emptying residual amounts from incompletely emptied barrels.

DELIVERY AND ASSEMBLY

As per offer.

PRODUCT SIZE

Heli-Dos® refilling system

Output unit, incl. power supply unit. Upstream container.
Media line, flexible (PE) in protected hose incl. clamping.
Electrical control line, three-core.



For continuous media supply

Heli-Dos® Safety requirements:

IEC 61010-1(2001) (2nd edition); EN 61010 (2001) (2nd edition)
EMC: EN 61326:1997 + A1:1998 + A2:2001 + A3:2003
EU-Directives: 2006/95/EC + 2004/108/EC + 2002/95/EC + 2002/96/EC

SPECIAL PRODUCT FOR DENTISTRY

Tiutol® dent ...for manual processing of dental equipment

PROPERTIES

- Disinfectant concentrate for manual processing of dental equipment (for disinfectant cleaning of aspirator equipment)
- Appropriate for dental aspirators and amalgam collectors
- Active against bacteria, yeasts, enveloped and non-enveloped viruses (incl. HBV/HCV/HIV)
- Very high cleaning performance
- Optimised formula, no smell of chlorine
- Good material compatibility

CAUTION

Do not mix with acids, other disinfectants or cleaners. This could result in the release of toxic chlorine gas!

DOSAGE AND INSTRUCTIONS FOR USE

Tiutol® dent is used at 3% – 60 min.

Tiutol® dent is an effective product that combines strong cleaning power with the appropriate disinfectant properties for this particular application. It should be used twice daily (at mid-day and in the evening) for systems with and without amalgam collectors. This is an important step towards comprehensive hygienic safety in dental practice.

Tiutol® dent has successfully been used in practice for more than 10 years. Its exceptional cleaning performance helps to reduce maintenance and repair costs.

CLEANING AND DISINFECTING IN JUST ONE STEP

1. Wear gloves
2. Fill the rinsing beaker with 970 mL cold water in a temperature range between 20 – 30 °C and add 30 mL Tiutol® dent.
4. Place the aspirator in the freshly prepared solution.
5. Siphon the ready-to-use solution through, except for about 300 ml. Remove the aspirator and allow to take effect for 60 minutes.
6. Use the remaining solution to clean and disinfect the rinsing bowl (with a brush if necessary).

| PRODUCT SIZE | REF |
|--------------|----------------|
| 5 l canister | 9325425, 18799 |

Physico-Chemical Data

pH-value (20 °C):
Density (20 °C, g/cm³):
Appearance

Concentrate

ca. 13.5
ca. 1.24
clear, pale yellow

Ready-to-use solution

ca. 12.5
ca. 1.0
clear, pale yellow



Tiutol® dent – Composition:

100 g solution contains sodium hypochlorite (3.9 g available chlorine), sodium hydroxide, stabilizer, corrosion inhibitors, water | Ingredients in accordance with the Regulations for Detergents EG 648/2004 < 5% Polycarboxylates | Labelling of dangerous goods: see material safety data sheet (MSDS). Cautions: Use disinfectants safely. Always read the label and the product information before use. Do not use the product after the expiry date. Keep away from children.

DOSING TABLE

| | | CONCENTRATION OF THE READY-TO-USE SOLUTION | | | | | | | | |
|---|-----------|--|-------|--------|--------|--------|--------|--------|--------|--------|
| | | 0.25 % | 0.5 % | 1 % | 1.5 % | 2 % | 2.5 % | 3 % | 4 % | 5 % |
| AMOUNT OF THE READY-TO-USE SOLUTION | 1 litre | 2.5 ml | 5 ml | 10 ml | 15 ml | 20 ml | 25 ml | 30 ml | 40 ml | 50 ml |
| | 2 litres | 5 ml | 10 ml | 20 ml | 30 ml | 40 ml | 50 ml | 60 ml | 80 ml | 100 ml |
| | 3 litres | 7.5 ml | 15 ml | 30 ml | 45 ml | 60 ml | 75 ml | 90 ml | 120 ml | 150 ml |
| | 4 litres | 10 ml | 20 ml | 40 ml | 60 ml | 80 ml | 100 ml | 120 ml | 160 ml | 200 ml |
| | 5 litres | 12.5 ml | 25 ml | 50 ml | 75 ml | 100 ml | 125 ml | 150 ml | 200 ml | 250 ml |
| | 6 litres | 15 ml | 30 ml | 60 ml | 90 ml | 120 ml | 150 ml | 180 ml | 240 ml | 300 ml |
| | 7 litres | 17.5 ml | 35 ml | 70 ml | 105 ml | 140 ml | 175 ml | 210 ml | 280 ml | 350 ml |
| | 8 litres | 20 ml | 40 ml | 80 ml | 120 ml | 160 ml | 200 ml | 240 ml | 320 ml | 400 ml |
| | 9 litres | 22.5 ml | 45 ml | 90 ml | 135 ml | 180 ml | 225 ml | 270 ml | 360 ml | 450 ml |
| | 10 litres | 25 ml | 50 ml | 100 ml | 150 ml | 200 ml | 250 ml | 300 ml | 400 ml | 500 ml |
| Concentrate amount necessary for the ready-to-use solution | | | | | | | | | | |

B. BRAUN DISINFECTANTS - OVERVIEW

| PRODUCT | | | | | | | | SPECTRUM | | | | |
|------------------------------|---------------------|-------------------------|--|--------------------------|---------------------------|------------------------------|-------------------------|--|----------------------|-------|--|-----------------------|
| | Instrument Cleaning | Instrument Disinfection | Disinfection of Hemodialysis Equipment | Bedpan Machine Cleansing | For Metal, Glass, Ceramic | For Thermolabile Instruments | For Flexible Endoscopes | Bacteria incl. multi drug resistant MO's (MRSA, VRE, ESBL) | Yeasts (levurocidal) | Fungi | Specific Fungi (Trichophyton mentagrophytes) | Tuberculosis Bacteria |
| Cleaner N | • | | | | • | • | • | | | | | |
| Helizyme | • | | | | • | • | • | | | | | |
| Stabimed® fresh | • | • | | | • | • | • | • | • | | | • |
| Stabimed® ultra | | • | | | • | • | • | • | • | • | | • |
| Helipur® H plus N | | • | | | • | • | • | • | • | | | • |
| Helipur® | • | • | | | • | | | • | • | • | | • |
| Helimatic® Cleaner alkaline | • | | | • | • | • | | | | | | |
| Helimatic® Cleaner MA | • | | | • | • | • | • | | | | | |
| Helimatic® Cleaner neutral | • | | | | • | • | | | | | | |
| Helimatic® Cleaner enzymatic | • | | | | • | • | • | | | | | |
| Helimatic® Neutralizer C | • | | | | • | | | | | | | |
| Helimatic® Neutralizer forte | • | | | | • | | | | | | | |
| Helimatic® Disinfectant | | • | | | • | • | • | • | • | • | | • |
| Helimatic® Rinse neutral | • | | | | • | | | | | | | |
| Helimatic® Latriniser | | | | • | • | | | | | | | |
| Tiutol® KF | | | • | | | | | • | • | • | | • |

1) According to RKI recommendations, Federal Health Gazette 01-2004
 2) DGHM: German Society for Hygiene and Microbiology
 3) VAH: Association for Applied Hygiene

| | | | | DISINFECTING AGENT | | | | | | | APPLICATION | | | | |
|--------------|--|-------------------------------------|--------|--------------------|----------|-------------------|-------------------|------------|----------------|-----------------|-----------------------------|--------------------------|--|---|---------------------|
| Mycobacteria | Enveloped Viruses (incl. HBV, HCV, HIV) ¹⁾ | Enveloped and non-enveloped viruses | Spores | Alcohol | Aldehyde | Formaldehyde-free | Phenol Derivative | Alkylamine | Peracetic acid | Active Chloride | pH of Ready-to-Use Solution | Concentrate for Dilution | Concentration for Use Disinfectant: DGHM ²⁾ /VAH ³⁾ | Contact Time (DGHM ²⁾ /VAH ³⁾ | Outbreak Management |
| | | | | | | • | | | | | 7 | • | 1.0% | 15 min. | |
| | | | | | | • | | | | | 7 | • | 1.0% | 5 min. | |
| | • | | | | | • | | • | | | 9 | • | 0.5% 1.0% | 15 min. 5 min. | |
| • | • | • | • | | | • | | | • | | 7.5 | • | 2.0% | 15 min. | |
| • | • | • | • | • | • | • | | | | | 5 | • | 1.0% 1.5% | 30 min. 15 min. | |
| • | • | | | | | • | • | | | | 9.5 | • | 1.5% 3.0% | 1 hr. 5 min. | 6% 2-6hrs. |
| | | | | | | • | | | | | 11.5 | • | 0.3 – 0.8% | | |
| | | | | | | • | | | | | 10 | • | 0.2 – 1.0% | | |
| | | | | | | • | | | | | 7 | • | 0.1 – 0.5% | | |
| | | | | | | • | | | | | 7 | • | 0.5% | max. 60 °C | |
| | | | | | | • | | | | | 3 | • | 0,05 – 0,3% | | |
| | | | | | | • | | | | | 2 | • | 0.1 – 0.2% | | |
| | • | • | | | • | • | | | | | 7 | • | 1.0% | 5 Min. 55 °C | |
| | | | | | | • | | | | | 7 | • | 0.05 – 0.2% | | |
| | | | | | | • | | | | | 3 | • | 0.3 – 1% | 1 Min. 83 °C | |
| | • | • | • | | | • | | | • | | 12.5 | • | 3.0% 60 °C | | |

ACCESSORIES

Spanner for 5 and 10 l canisters

- Made of plastic

| PRODUCT SIZE | REF |
|--|---------|
| 5 l & 10 l standard and marwin canisters | 3908444 |



Instrumenten Tray

- Practical support for instrument disinfection
- With transparent lid
- Temperature stable up to 50 °C

| PRODUCT SIZE | REF |
|-----------------------------------|---------|
| Volume 2 l 325 x 176 x 150 mm | 3908259 |
| Volume 10 l 530 x 325 x 150 mm | 3908267 |



Hand Pump

- For dosing out of 5 l canister
- Dosage approx. 15 ml or 20 ml
- Single packaging
- No measuring device

| PRODUCT SIZE | REF |
|-----------------------------|---------|
| 15 ml dose for 5 l canister | 3908478 |
| 20 ml dose for 5 l canister | 3908479 |



Measuring Cap & Suction Tube Doser

- Measuring cap for 15 ml to 50 ml
- Packs of 5 pieces made of PP
- No measuring device
- Suction tube doser for 1000 ml bottle
- Single packed made of PP/HDPE
- No measure device

| PRODUCT SIZE | REF |
|----------------------------------|---------|
| Measuring cap for 10 – 50 ml | 3908046 |
| Suction tube doser for 5 – 20 ml | 3908422 |



Discharge Stopcock

- For convenient and economical refilling of 5 l canister

| PRODUCT SIZE | REF |
|-------------------------------------|---------|
| Discharge stopcock for 5 l canister | 3908477 |



More items you can find in our range brochure accessories

B. BRAUN INFECTION PREVENTION

B. Braun infection prevention products and services are effectively contributing to the prevention and management of infections in healthcare settings all over the world. Protective wear, hand and skin hygiene, cleaning and disinfection of surfaces and instruments are helping to protect health care workers and patients against all kinds of infectious diseases and to minimize spreading of pathogens.

Learn more about our infection prevention portfolio at www.bbraun.com/infection-prevention



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