

INSTRUMENT  
REPROCESSING



# INSTRUMENTS

MANUAL & AUTOMATED REPROCESSING OF INSTRUMENTS

## We care for patient and healthcare worker 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 for use and proper training to learn how to.
- equipment (e.g. appropriately sized brushes) available for use.
- Personal Protective Equipment (PPE), to protect themselves against biohazards or splashes of reprocessing agents.

Every used medical device has to be regarded as contaminated, even it is visibly clean. 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 healthcare worker 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 prevention and control portfolio including PPE.

An optimized process using B. Braun products fulfills highest requirements regarding patient and healthcare worker safety reducing repair and maintenance costs.

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

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

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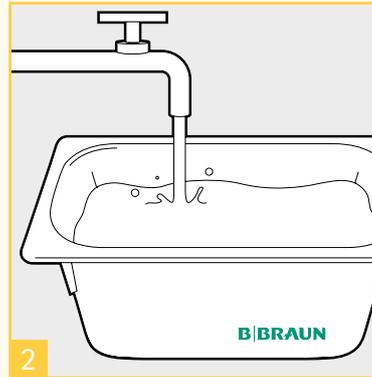
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# INSTRUMENTS

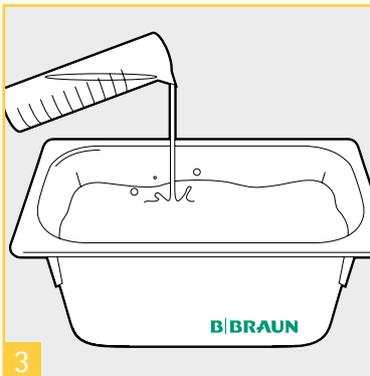
## MANUAL REPROCESSING OF INSTRUMENTS



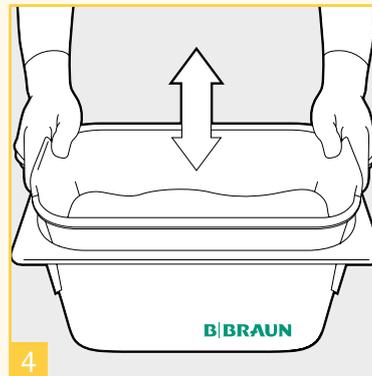
Wear PPE.



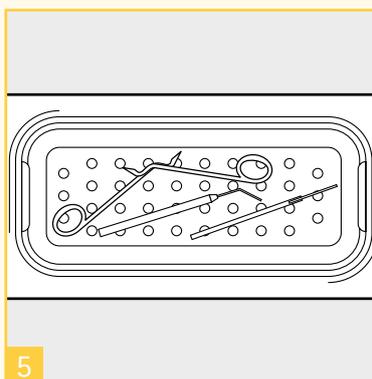
Fill container, e.g. instrument bath, with ca. 20 °C water.



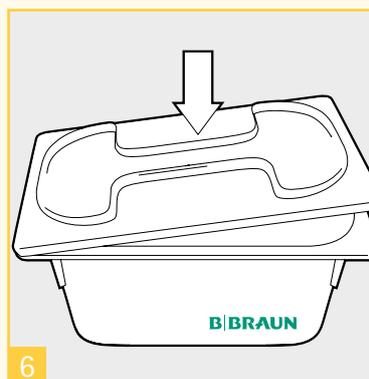
Using a suitable dosage system, measure disinfectant and add to the water; for a powder product, wait until the disinfectant has dissolved.



To mix, move tray upwards and downwards.



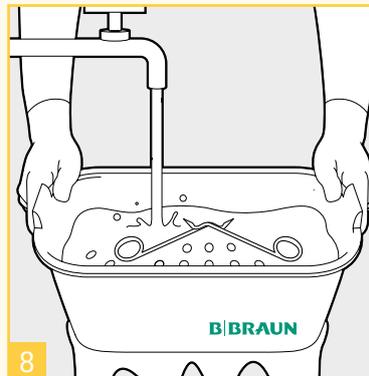
Place instruments and equipment in the solution, making sure they are fully immersed.



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.

# ENZYMATIC CLEANER



**Helizyme** ...for manual reprocessing of instruments and flexible endoscopes

## 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 in 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.

PRODUCT SIZE	REF
1000 ml bottle	18557, 18765, 19862
5 l canister	18767, 19448, 19863

**Physico-Chemical Data**

pH-value (20 °C):  
Density (20 °C, g / cm<sup>3</sup>):  
Appearance

**Concentrate Ready-to-use solution**

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



Perfume-free

**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.

# DISINFECTING CLEANER



**STORZ**  
KARL STORZ – ENDOSKOPE

Stabimed® fresh ...simultaneously 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**

- Simultaneously cleaning & disinfection of heat resistant re-usable medical device
- Effective against bacteria, yeasts and enveloped viruses at 1 %/5 minutes
- Fresh and pleasant smell
- Tuberculocidal 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	Concentrate	Ready-to-use solution
pH-value (20 °C):	ca. 10	ca. 9
Density (20 °C, g/cm <sup>3</sup> ):	ca. 0.98	
Appearance	clear	clear
	blue-green	blue-green

**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.

1) acc. recommendation of RKI, Bundesgesundheitsblatt 03-2017    2) VAH = Association of Applied Hygiene

Use diluted under clean and/or dirty conditions at ambient temperature (min. 20°C)

**MICROBIOLOGICAL EFFICACY**

Micro-organism	Conc.	Contact time	ml/l
Cleaning and disinfection of instruments Bactericidal, yeasticidal (EN 13727, 13624, 13561, 13562)	1.0%	5 min.	10 ml/l
	0.5%	15 min.	5 ml/l
Virucidal against enveloped viruses (incl. HBV, HCV, HIV) <sup>1)</sup>			
Vaccinia-virus Tuberculocidal (M. terrae) (EN 14348, EN 14563)	2.0%	15 min.	20 ml/l
	0.5%	30 min.	5 ml/l
Cleaning and disinfection in an ultrasonic bath	1.0%	5 min.	10 ml/l
Adenovirus (EN 14476)	4.0%	1 h	40 ml/l
Polyomavirus (DVV/RKI)	2.0%	1 h	20 ml/l

**CAUTIONS**

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



replaces Stabimed®

# HIGH-LEVEL DISINFECTANT



**STORZ**  
KARL STORZ – ENDOSKOPE

Stabimed® ultra ...for manual reprocessing

## 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 Stabimed® 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	19939

## Physico-Chemical Data

pH-value (20 °C):  
Density (20 °C, g/cm<sup>3</sup>):  
Appearance

## Concentrate Ready-to-use solution

n.a. 7 – 8  
n.a. ca. 1 g/cm<sup>3</sup>  
white clear  
powder light blue

## 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.

1) acc. recommendation of RKI, Bundesgesundheitsblatt 03-2017

Use diluted at ambient temperature (min. 20°C). For the final disinfection of heat sensitive medical devices use clean conditions.

## MICROBIOLOGICAL EFFICACY

Micro-organism	Conc.	Contact time	ml/l
Cleaning and disinfection of thermostable and thermolabile instruments. Bactericidal, yeasticidal, mycobactericidal (EN 13727, 13624, 14348, 14561, 14562, 14563)	2%	10 min	20 ml/l
	1.5%	15 min	15 ml/l
Virucidal (EN 14476, EN17111 incl. HBV, HCV, HIV1)	2%	10 min	20 ml/l
	1.5%	15 min	15 ml/l
Fungicidal (A. brasiliensis) (EN 13624, 14562)	2%	15 min	20 ml/l
Sporicidal (EN 17126, C. difficile, B. subtilis)	2%	10 min	20 ml/l
	1.5%	15 min	15 ml/l

## 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](http://www.a-k-i.org)



Virucidal & sporicidal

# MANUAL DISINFECTANT



**STORZ**  
KARL STORZ – ENDOSKOPE

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

Disinfectant for pre-cleaned surgical instruments and 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), yeasticidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HCV, HIV)<sup>1)</sup> and non-enveloped viruses
- Economically low ready-to-use working concentration: (1 %/30 Min.; 1.5 %/15 Min. VAH<sup>2)</sup>)
- Can be used in ultrasonic baths
- Approved and listed by Karl Storz



**AT A GLANCE**

- Highly effective
- Excellent material compatibility
- Virucidal acc. DWV/RKI and EN 14476
- Free of formaldehyde
- For rigid and flexible endoscopes
- VAH<sup>2)</sup>-listed

**INSTRUCTIONS FOR USE**

- Soiled instruments should be precleared with a detergent.
- Use Helizyme for cleaning of flexible endoscopes prior to disinfection.
- After disinfection, rinse the instruments thoroughly with water and proceed as required.
- Perform the final rinse in demineralized or distilled water.
- Visibly contaminated solutions shall be discarded.
- Please use product only in well-ventilated rooms and keep the instrument bath closed.

**CAUTION**

Do not mix with amine based products.

PRODUCT SIZE	REF
1000 ml bottle	3891950, 18940
5 l canister	3892212, 18941

**Physico-Chemical Data**

pH-value (20 °C):  
Density (20 °C, g/cm<sup>3</sup>):  
Appearance

**Concentrate Ready-to-use solution**

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

Use diluted under clean conditions at ambient temperature (min. 20°C)

**MICROBIOLOGICAL EFFICACY (CLEAN CONDITIONS)**

Micro-organism	Conc.	Contact time	ml/l
Disinfection of thermostable and thermolabile instruments	1.5%	15 min.	15 ml/l
	1.0%	30 min.	10 ml/l
Bactericidal, yeasticidal (EN 13727, 13624, 14561, 14562)			
Virucidal against enveloped viruses (DVV/RKI, EN 17111 incl. HBV, HCV, HIV) <sup>1)</sup>	1.0%	15 min.	10 ml/l
Virucidal (non enveloped viruses), (EN 14476, 17111)	4.0%	15 min.	40 ml/l
	2.0%	30 min.	20 ml/l
Rotavirus (DVV/RKI)	0.25%	5 min.	2.5 ml/l
Polyomavirus (DVV/RKI) <sup>1)</sup>	2.0%	15 min.	20 ml/l
	1.0%	30 min.	10 ml/l
Adenovirus (EN 14476)	1.0%	5 min.	10 ml/l
Poliovirus (EN 14476)	4.0%	15 min.	40 ml/l
Norovirus (MNV, EN 14476, 17111)	2.0%	30 min.	20 ml/l
Mycobactericidal (EN 14348, 14563)	4.0%	15 min.	40 ml/l
	2.5%	30 min.	20 ml/l
Sporicidal (acc. 14347, B. subtilis and B. cereus, min. 4 log reduction)	17%	- 6 h	170 ml/l
	15%	- 8 h	150 ml/l



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 only professional use.

1) acc. recommendation of RKI, Bundesgesundheitsblatt 03-2017 2) 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<sup>1)</sup> and TbB), fungi and enveloped viruses (incl. HBV, HCV, HIV)<sup>1)</sup> and Polyoma- and Adenovirus.
- Can be used in ultrasonic baths
- VAH<sup>2)</sup>- and RKI<sup>3)</sup>-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 <sup>3</sup> ):	ca. 1.09	
Appearance	red-brown	

## 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, clourants. 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) acc. recommendation of RKI, Bundesgesundheitsblatt 03-2017

3) RKI = Robert Koch-Institute

2) VAH = Association of Applied Hygiene

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

Use diluted under clean and/or dirty conditions at ambient temperature (min. 20°C)

## MICROBIOLOGICAL EFFICACY

Micro-organism	Conc.	Contact time	ml/l
Disinfection of instruments.	3%	5 min	30 ml/l
Bactericidal, yeasticidal, myco-bactericidal (EN 13727, EN 13624, EN 14348, EN 14562, EN 14563)	1.5%	15 min	15 ml/l
Virucidal against enveloped viruses (EN 14476, 17111 incl. HBV, HCV, HIV) <sup>1)</sup>	1%	15 min	10 ml/l
Fungicidal (A. brasiliensis) (EN 14562)	3% 1.5%	15 min 60 min	30 ml/l 15 ml/l
Further results (in vitro)			
Polyomavirus (DVV/RKI)	1.5%	5 min	15 ml/l
Adenovirus (EN 14476)	3%	60 min	30 ml/l

## CAUTION

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



Excellent cleaning

# DECENTRALIZED AUTOMATIC DOSING UNIT

## Melseptomat® G ...our dosing machine

### 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

### 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 guideline<sup>1</sup>



Watch Melseptomat® G installation,  
calibration, operation on [www.youtube.com](http://www.youtube.com).  
Just browse for «Melseptomat® G»

<sup>1</sup>"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.

# 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

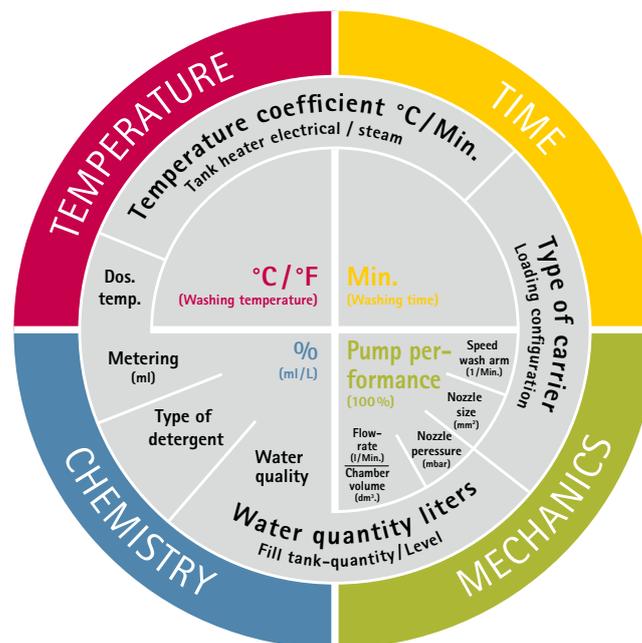
	For heat resistant re-usable medical devices	For heat resistant re-usable medical devices	For heat sensitive re-usable medical devices such as flexible endoscopes
Process	Alkaline	Neutral/enzymatic	Neutral/enzymatic
pH value	pH > 10	pH = 7	pH = 7
Cleaning	Helimatic® Cleaner alkaline Helimatic® Cleaner MA	Helimatic® Cleaner neutral Helimatic® Cleaner enzymatic	Helimatic® Cleaner enzymatic
Neutralising	Helimatic® Neutralizer C	Helimatic® Neutralizer C	
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.

# ALKALINE CLEANER

Helimatic® Cleaner alkaline ...for automatic reprocessing of re-usable medical devices

## 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 is suitable for neutralization of alkaline residues.

PRODUCT SIZE	REF
5 l canister	18731
200 l barrel	18774
600 l container	18796

## Physico-Chemical Data

pH-value (20 °C):  
Density (20 °C, g/cm<sup>3</sup>):  
Appearance

## Concentrate

ca. 12.8  
ca. 1.09  
clear, pale yellow

## Ready-to-use solution

ca. 11



pH >10, surfactants

## Helimatic® Cleaner alkaline – Composition:

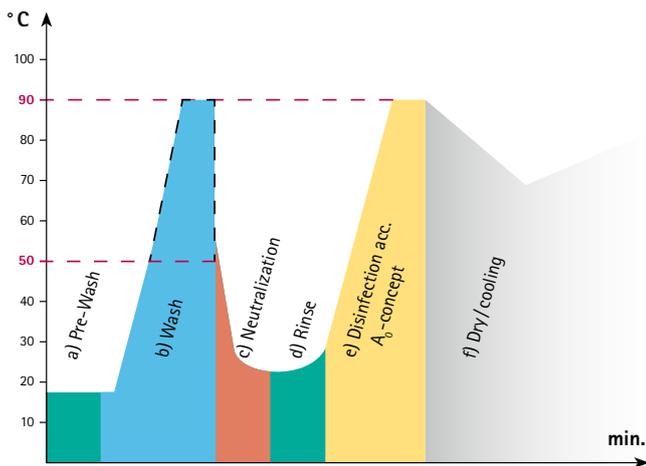
contains 5 - 15% complexing agents, < 5% anionic surfactants, < 5% non-ionic surfactants, < 5% polycarboxylates, corrosion inhibitors, excipients in alkaline formulation. Ingredients in accordance with the Regulations for Detergents EG 648/2004 < 5% anionic surfactants, < 5% non-ionic surfactants, 5% 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)  
 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

# MILD ALKALINE CLEANER

**Helimatic® Cleaner MA** ...for automatic reprocessing of re-usable medical devices, gentle to sensitive materials as e.g. anodized aluminum

## 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).

## ESTABLISHED STANDARD

Helimatic Cleaner MA was rated as a highly excellent cleaner with outstanding gentle material properties see PhD thesis<sup>1)</sup>.

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/cm<sup>3</sup>):  
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.

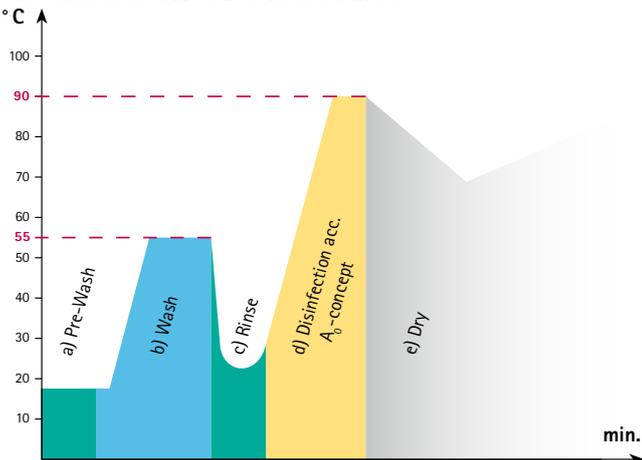
1) Dr. Gerhard Kirmse – Einflussfaktoren auf die maschinelle Reinigung von Standardinstrumenten; 2015 - ISBN 9783863761370

EXAMPLE FOR AN AUTOMATED CYCLE:

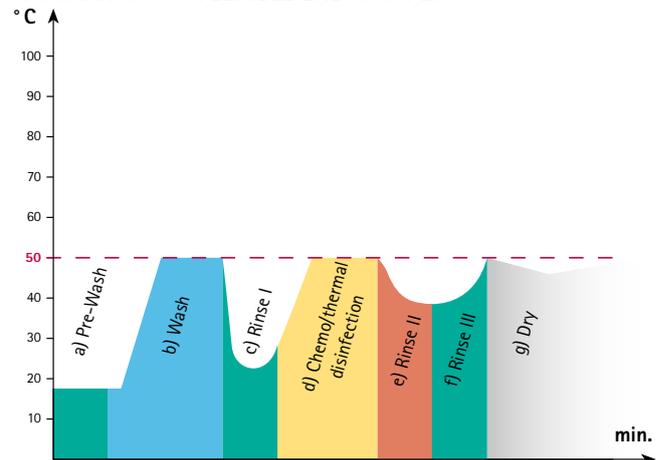
Before starting the automated reprocessing cleaning agents and disinfectants from the manual pre-treatment must first be rinsed completely from the instruments and equipment. This program proposal may vary depending on the situation in practice!

**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

# pH-NEUTRAL CLEANER

Helimatic® Cleaner neutral ...for automated reprocessing of reusable medical devices

## 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 disinfectant, 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

### Helimatic® Cleaner neutral – Composition:

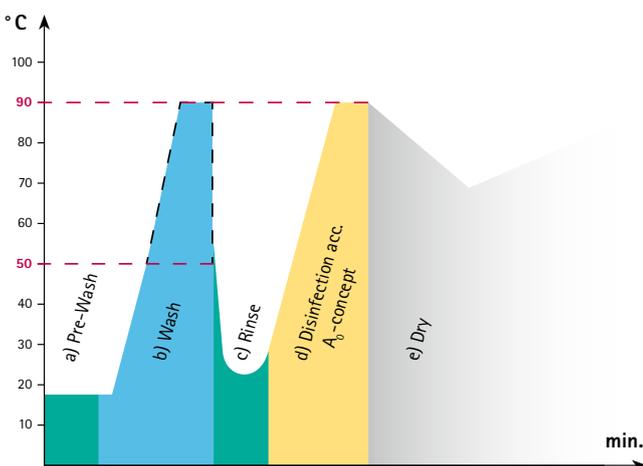
Surfactants, complexing agents, corrosion inhibitors, preservatives, perfume, expiants | Ingredients in accordance with the Regulations for Detergents EG 648/2004 <5% anionic surfactants, <5% nonionic surfactants, 5% NTA, <5% phosphonate, <5% polycarboxylate, glutaral, perfume | Labelling of dangerous 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.



Ternary surfactant system,  
patented

**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. A<sub>0</sub>-concept**

Fill tank with fully deionized water  
Heat up and pumping time with max. pump performance after A<sub>0</sub>-concept (e.g. ≥ 90 °C – 5 min.)  
Drain tank

**e) Dry/cooling**

Time and temperature as specified by the manufacturer

# ENZYMATIC CLEANER

Helimatic® Cleaner enzymatic ...for automated reprocessing of reusable medical devices and flexible endoscopes

## 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:

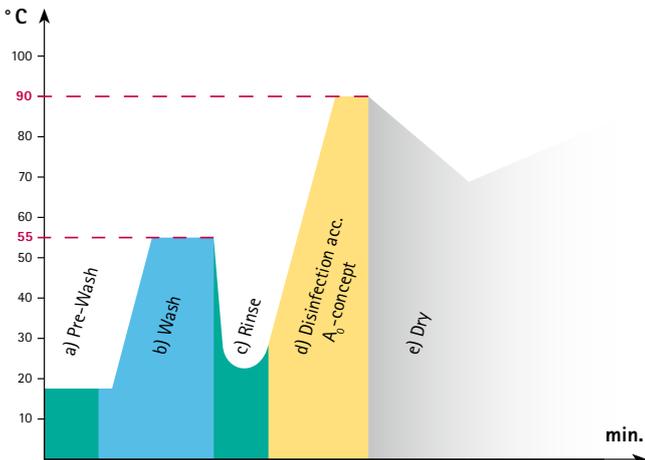
< 5% anionic surfactants, < 5% non-ionic surfactants, enzymes, salts of organic acids, solvents, dispersion agent, corrosion inhibitors, preservatives, excipients. Ingredients in accordance with the Regulations for Detergents EG 648/2004 < 5% anionic surfactants, < 5% non-ionic surfactants, < 5% polycarboxylate, 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

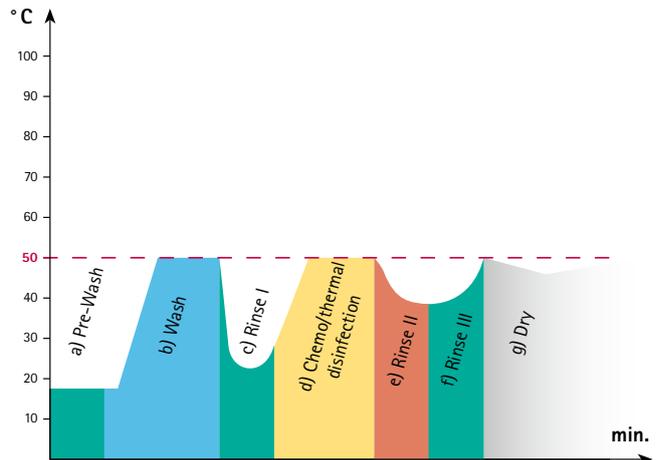
**d) Disinfection acc. A0-concept**

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

# NEUTRALISER

Helimatic® Neutralizer C ...for automated reprocessing of reusable medical devices, contains

## 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	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

# RINSING AND DRYING AID

**Helimatic® Rinse neutral** ...fast and stain free drying for automated reprocessing of reusable medical devices

## PROPERTIES

- Fast and stain free drying 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



Low cytotoxicity

### 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.

# DISINFECTANT

## Helimatic® Disinfectant ...for automatic 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 efficacy under clean conditions

Test organism / Virus	Conc.	Time	Temp.
Bactericidal (EN 13727, EN 14563, E. faecium)	1.0%	5 min.	55 °C
Fungicidal (EN 13624, EN 14562)	1.0%	5 min.	55 °C
Mycobactericidal (EN 14348, EN 14563)	1.0%	5 min.	55 °C
Virucidal (EN 14476, 17111)	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.

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## PRODUCT SIZE

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### 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.

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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



# 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
<b>Concentrate amount necessary for the ready-to-use solution</b>										



# 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
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® Disinfectant		•			•	•	•	•	•	•		•
Helimatic® Rinse neutral	•				•							
Helimatic® Latriniser				•	•							

1) According to RKI recommendations, Federal Health Gazette 01-2004

2) VAH: Association for Applied Hygiene

				DISINFECTING AGENT							APPLICATION				
Mycobacteria	Enveloped Viruses (incl. HBV, HCV, HIV) <sup>1)</sup>	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: VAH <sup>2)</sup>	Contact Time (VAH <sup>2)</sup>	Outbreak Management
						•					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%		
	•	•			•	•					7	•	1.0%	5 Min. 55 °C	
						•					7	•	0.05 – 0.2%		
						•					3	•	0.3 – 1%	1 Min. 83 °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](http://www.bbraun.com/infection-prevention)



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