

schulke -+

Schulke Instrument Reprocessing

Precision in cleaning and disinfection



we protect lives
worldwide

Our major plus – our total hygiene skills.



schülke

We protect lives worldwide.

Our products and services protect people and materials against infections and contaminations. In so doing, we have learnt that the prevention of infections is considerably easier than fighting them.

Our world is changing. Our planet is getting closer, borders are breaking down. People are travelling from country to country and microorganisms are turning up ever more frequently as invisible passengers in a globalised world. The risks associated with this are often underestimated.

Counter-measures deal more with treating the symptoms rather than fighting the causes. Subsequently there are gaps appearing in the hygiene chain. We want to close these gaps with our integrated approach. We offer effective products, competent advice and a broad range of services.

Our hygiene concept is based on over 130 years of experiences with the successful combat of any kind of germs. Our solution for the microbiological challenge consists out of many new procedures and products.

With all activities of our company we feel obliged to keep sustainability for a safe environment. Resource

efficiency, environment protection and social responsibility during product developments are a main focus for schülke.

We believe in the power of partnerships when searching for the best solution. In collaboration with industry leaders and experts we strive to provide excellence and innovation. We aim to offer tested solutions as soon as new hygiene-related problems emerge.

As hygiene experts we must always be ahead of our time. For example our wound and mucous membrane antiseptic, octenisept®: Within a short time this product range has become market leader in the wound and mucous membrane antiseptic.

(Source: IMS Health Germany)



Hygiene has a name: schülke.

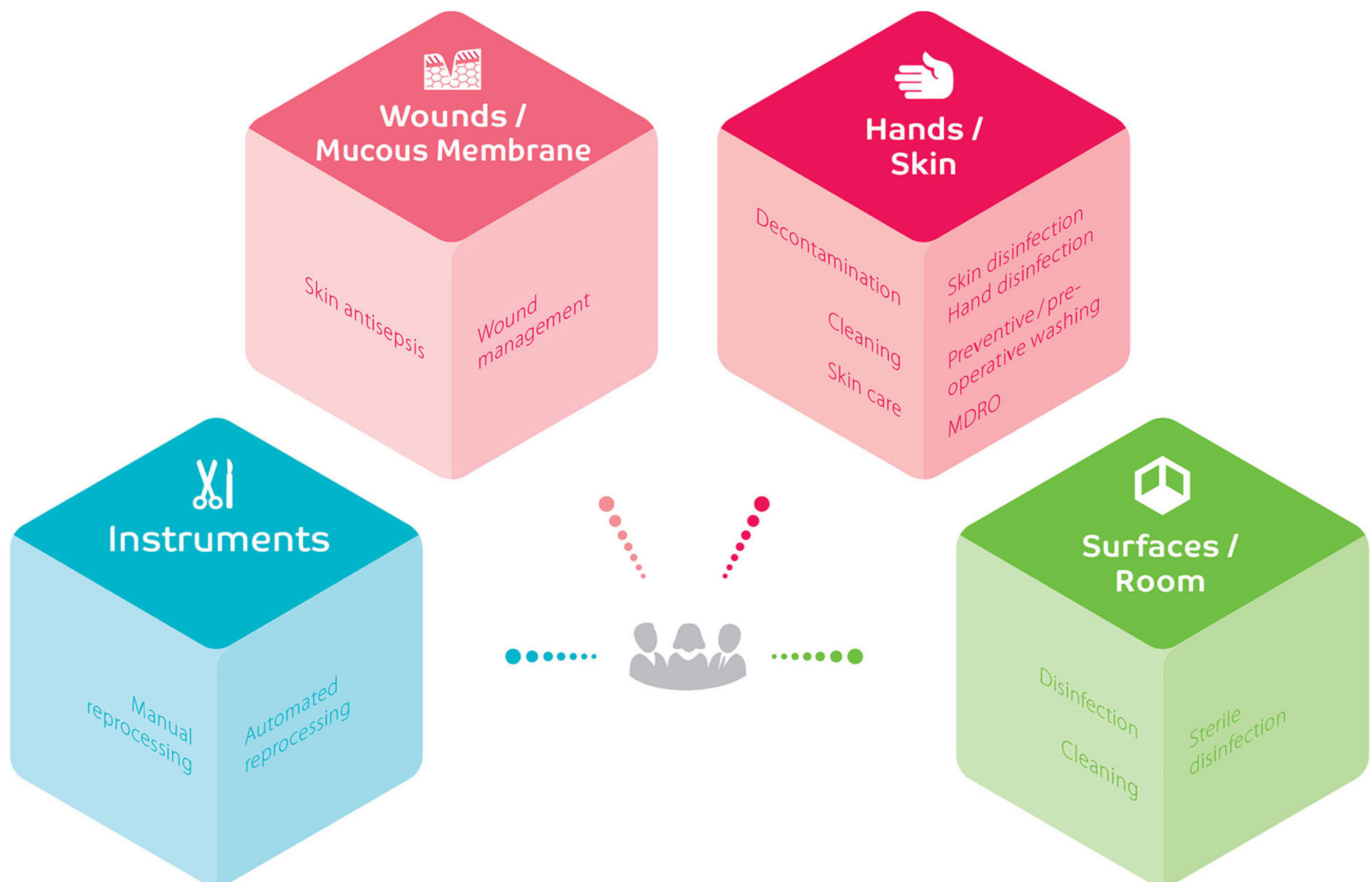
'The teaching of preventing disease and maintaining, promoting and stabilising health.'

This is how the DGHM (German Society for Hygiene and Microbiology) defines hygiene. Our research, development and production, along with constant quality assurance, all follow on from this idea.

Numerous new processes and products have already been developed, solving each microbiological challenge as it arose.

We will continue to develop products ensuring clean hospital environments in the future.

We offer our clients a wide range of products and services fulfilling all hygiene-related requirements for outstanding quality, effectiveness and safety in use.



The products and services presented in this brochure are not available in every country. If you have any questions or comments please contact one of our subsidiaries (listed on the back) or your local distributor for more information.

Easy, colourful identification.

Our information icons for fast identification.

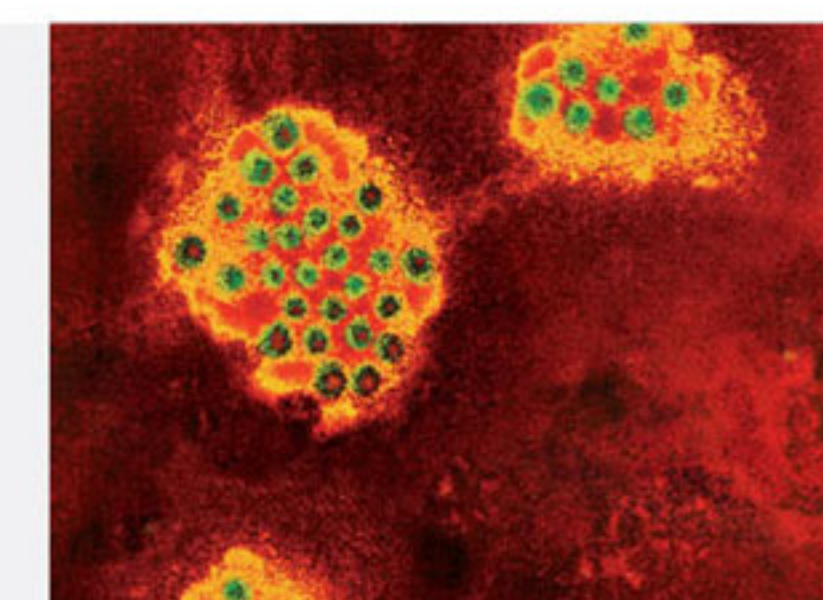
They show which pathogens, which mode of action and which properties are important for the individual products.

In the brochure these information icons appear wherever the use of schülke products is mentioned explicitly.

NORO

Norovirus (symbol used in the area of the skin / hands, surfaces)

Noroviruses are the leading cause of non-bacterial gastrointestinal infections. The virus is transmitted via the faeces and orally. Immunocompromised patients in particular suffer from serious consequences of the infection. These viruses are particularly resistant and can thus survive on surfaces for a relatively long time. Effective prevention can be achieved with professional hygiene; treatment with tested products proven to be effective against norovirus (MNV).



C. DIFF

Clostridium difficile (symbol used in the area of surfaces, instruments)

Clostridium difficile is a spore-forming bacterium that is capable of causing various forms of diarrhoea and bowel diseases with serious consequences, which can be particularly dangerous for elderly patients and children. Preparations containing oxidising active substances or RKI-listed products with proven sporicidal activity should preferably be used for disinfection.



TB

TB (symbol used in the area of the skin / hands, surfaces, instruments)

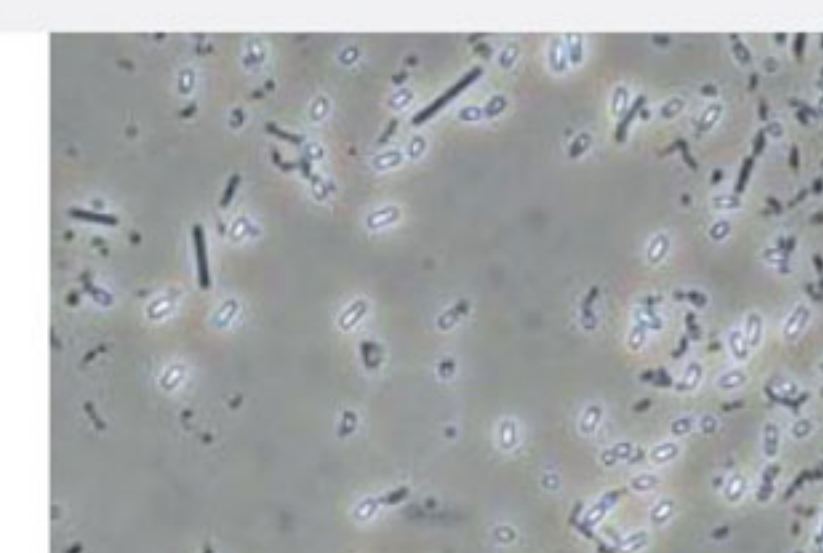
Tuberculosis (abbreviated TB) is an infectious disease that most commonly affects the lungs and is caused predominantly by mycobacteria. The prevalence of extremely drug-resistant TB strains is particularly worrying. Mycobacteria remain infectious for many hours in the ambient air and on the hands, the skin, surfaces and surgical instruments. Disinfectants with suitable active substances and a broad spectrum of activity can be used for prevention and control. Their efficacy should be ensured by the special test instructions for mycobacteria of the European standards EN 14348 and EN 14563 and listed in accordance with DGHM / VAH.



SPORICIDAL

Sporicidal (symbol used in the area of surfaces, sterile products, instruments)

Sporicidal efficacy refers to a product's ability to decrease the number of viable bacterial spores of certain test microbes under predefined conditions. (in accordance with EN 14347).



BAC

Bactericidal (symbol used in the area skin / hands, antiseptic, surfaces, sterile products, instruments)

The term bactericidal is used to describe active substances or active substance solutions that damage the bacteria so severely that they trigger the irreversible cell death of the pathogens. Bacteria can be transmitted through droplet infection, via the hands, skin, surfaces and instruments. Bactericidal disinfectants reduce or in the best case prevent the transmission of infections through bacteria.



VIRUCIDAL PLUS

Limited Spectrum Of Virucidal Activity (symbol used in the area of the skin / hands, surfaces, sterile products, instruments)

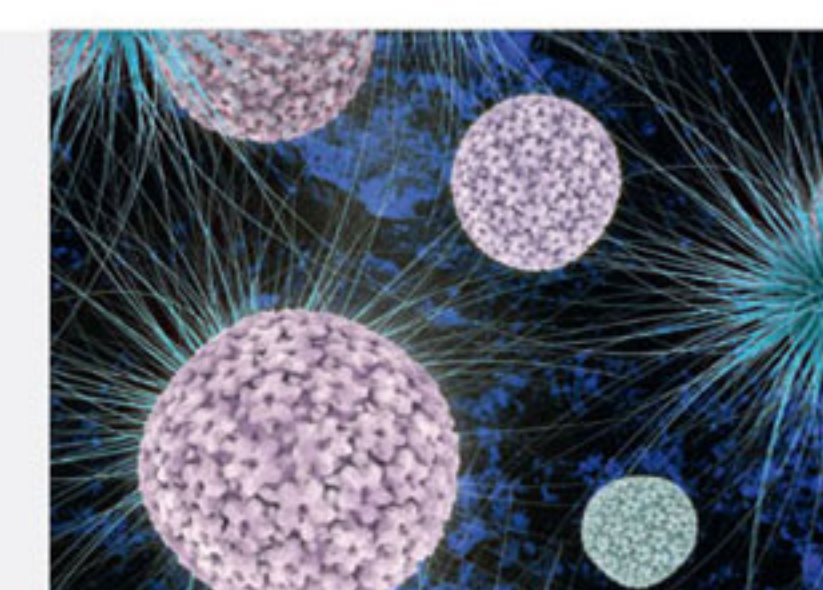
Limited Spectrum Of Virucidal Activity is the term applied to active agents or disinfectants which attack viruses (adeno, noro, rota) and/or their nucleic acids, excluding the so-called non-enveloped viruses, so strongly that they irreversibly damage or inactivate the pathogen. Active disinfectants with the spectrum of action Limited Virucidal PLUS are very good all-year-round products. A changeover to other products due to seasonal differences in the viral pathogens is unnecessary.



VIRUCIDAL

Virucidal (symbol used in the area of the skin / hands, surfaces, sterile products, instruments)

Virucidal refers to medicinal products or disinfectants that attack viruses and their nucleic acids so severely that they irreversibly damage or inactivate the pathogen. Viruses can be transmitted through droplet infection, via the hands, skin, surfaces and instruments. Virucidal disinfectants reduce or in the best case prevent the transmission of infections through viruses.



RKI LISTED

RKI-listed (symbol used in the area of the skin/hands, surfaces)

The list of the German Robert Koch Institute details all disinfectants and procedures recommended by the Medical Officer in the event of an epidemic. The Robert Koch Institute researches and documents communicable diseases in humans. It has been operating independently for more than 100 years and combines basic and applied research. For more information visit: www.rki.de/DE/Content/Infekt/Krankenhaushygiene/Desinfektionsmittel/Desinfektionsmittellist/Desinfektionsmittelliste_node.html



More information about germs: <https://www.schuelke.com/intl-en/knowledge/article/Germs.php>

Safety is the top hygiene priority. Clinically clean applications in all areas.

Classification of medical devices*

Classification	Use	Examples of devices	Preparation
Uncritical medical devices	Only contact with intact skin	e.g. stethoscope, ECG electrodes	Cleaning and disinfection**
Semicritical medical devices (risk group A)	Contact with mucous membrane or through illness modified skin as well as the use in not sterile body cavity.	e.g. teething rings, rigid rectoscopes, proctoscopes	Cleaning and a virucidal manual disinfection**
Semicritical medical devices (risk group B)		Medical devices with higher requirements for the preparation, f.e. flexible endoscopes, additional instruments	Cleaning and a virucidal manual, but preferred automated disinfection**
Critical medical devices (critical A)	Getting through the skin/ mucous membrane, penetration of tissue, use in sterile body cavity, where the contact with blood, inner tissue or organs is possible.	e.g. retractors	Cleaning and disinfection, as well as sterilisation**
Critical medical devices (critical B)		e.g. endoscopes, additional instruments, biopsy forceps	Cleaning and disinfection, as well as sterilisation**
Critical medical devices (critical C)		e.g. thermolabile catheters	Cleaning and disinfection, as well as sterilisation** (There needs to be a further certification for the quality management systems by the competent authority)

To prevent contamination, to protect employees and patients.

With the current version of the KRINKO/BfArM recommendation dated 10/2012 'Hygiene Requirements for Reprocessing of Medical Devices', both efficient cleaning of instruments and employee protection during reprocessing are becoming increasingly important!

In accordance with the new requirements regarding the cleaning power and increased safety for employees, new product generations were developed at schülke's research department. These innovative high-performance cleaning agents ensure excellent removal of infectious contaminations through an optimal combination of potent enzymes and an innovative surfactant system.



The new cleaning agents with cleaning and disinfecting characteristics of the X-tra generation are available for all relevant areas of reprocessing:

- 1 | **Manual pre-cleaning** including an antimicrobial effect for employee protection.
- 2 | **Manual final disinfection** – highly effective disinfectant concentrates with a full spectrum of activity for safe final disinfection.
- 3 | **Automated reprocessing** of medical instruments and utensils. High-performance, modern process chemicals for the automated reprocessing of thermostable and thermolabile medical devices.
- 4 | **Automated endoscope reprocessing** – special products to meet the increased demands of chemo-thermal reprocessing of flexible endoscopes. Compatible cleaning agents and disinfectants for use in all common AER (Automated Endoscope Reprocessor) types.

* According to: RKI, DGSV

** The German medical devices operator ordinance (Medizinprodukte-Betreiberverordnung (MPBetreibV)) sets out provisions for reprocessing in Sections 2 and 4. It is made clear that reprocessing must take place in accordance with the provisions of the MPBetreibV and the generally acknowledged rules of technology as well as in accordance with the regulations on occupational safety and accident prevention (Section 2, Paragraph 1 MPBetreibV). Reprocessing may only be assigned to qualified staff. (Source: recommendations for the monitoring of the reprocessing of medical devices (RKI/BfArM Recommendations Project Group 22.01.2008))

Hygiene is the most important instrument.

safe. clean. schülke.

The hygienic care and decontamination of medical instruments in medical usage demands an efficient and highly effective formulation which is attuned to the challenges of everyday clinical routine.

Precision and ergonomic handling are two of the most important features of instruments, the cleaning and disinfection of these instruments has to work just as precisely.

Increased demands on decontamination make material compatibility just as important as a broad spectrum of disinfection efficiency.

Reliable preparations with short contact times and low use concentrations are essential to ensure smooth and fast reprocessing.

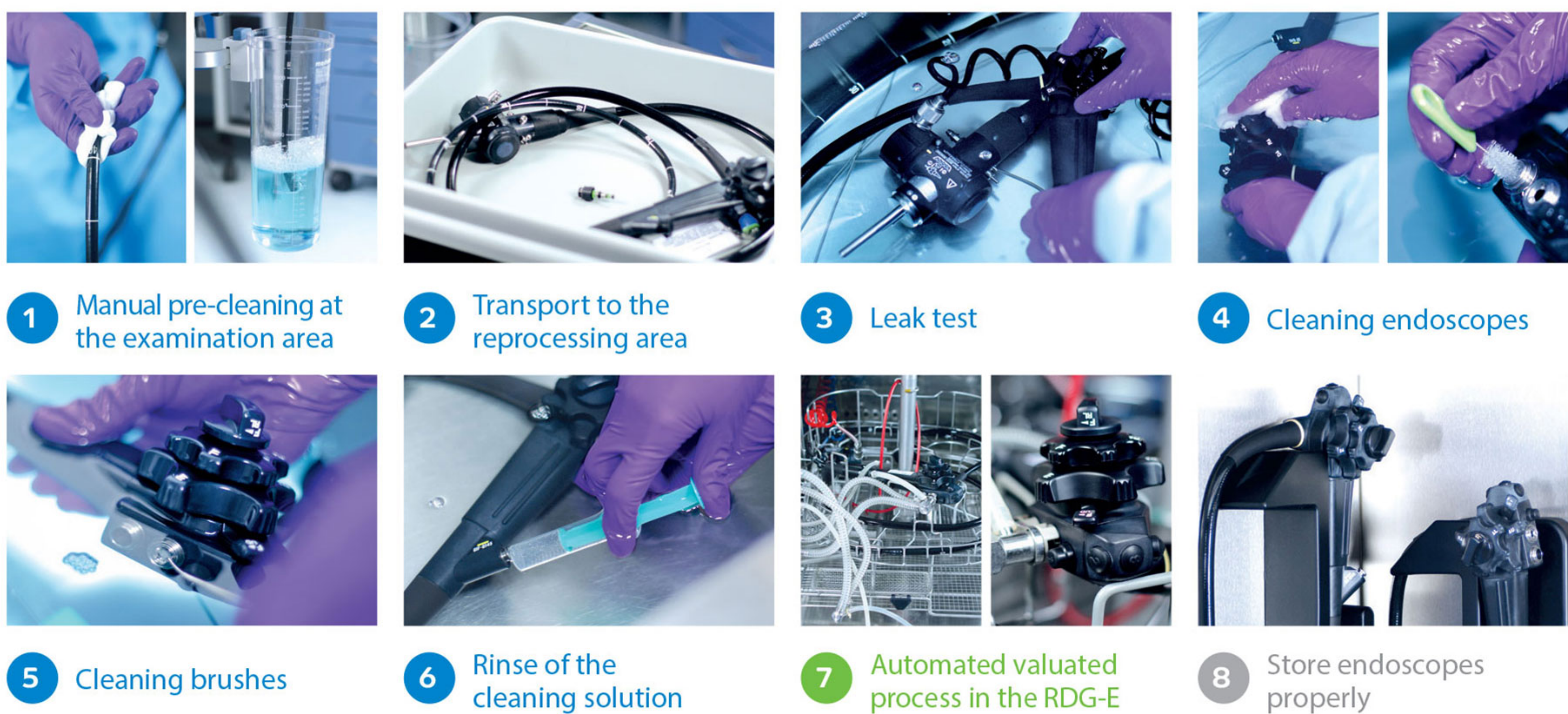
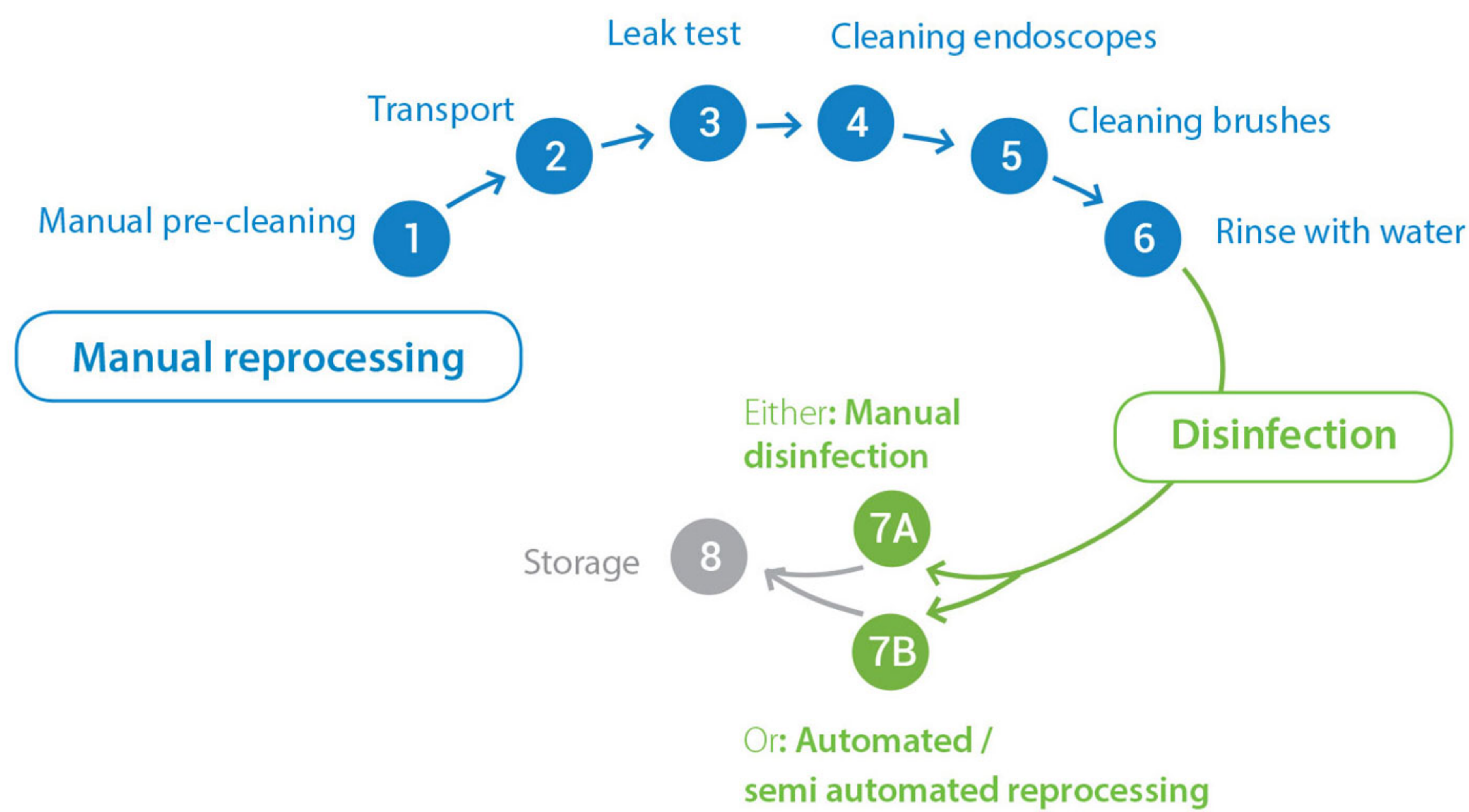
The comprehensive offering of innovative formulations sets international safety standards based on these challenges ensuring a high level of safety for users and patients in the automated and manual cleaning of instruments.

The entire schülke product portfolio is developed with the most up-to-date scientific principles, is extensively tested and meets all legal requirements.



Hygienically clean down to the smallest detail.

Optimally minimise the risk of infection in endoscopy.



No disinfection and sterilisation is safe without thorough pre-cleaning!

Microorganisms can only be effectively inactivated when they are not embedded in dirt, blood or secretions. Thorough cleaning is vital for successful disinfection.

When reprocessing particularly demanding instruments, such as flexible endoscopes, the use of modern high-performance cleaning agents is especially advisable due to the narrow canals or the possible presence of biofilms.

The cleaning strength of the process chemicals plays a key role in manual pre-treatments and in automated reprocessing. Only highly potent products, which are harmonised to each other, can effectively target and remove stubborn organic residues during the process.

Enzyme power in the manual instrument reprocessing.

gigazyme® X·tra: Control the cleaning – protect the personnel.

gigazyme® X·tra is a high-performance cleaning agent with basic disinfecting activity for the manual reprocessing of instruments and endoscopes. Its surface-active ingredients help to efficiently remove protein-based residues and ensure RKI-conform pre-treatment*.

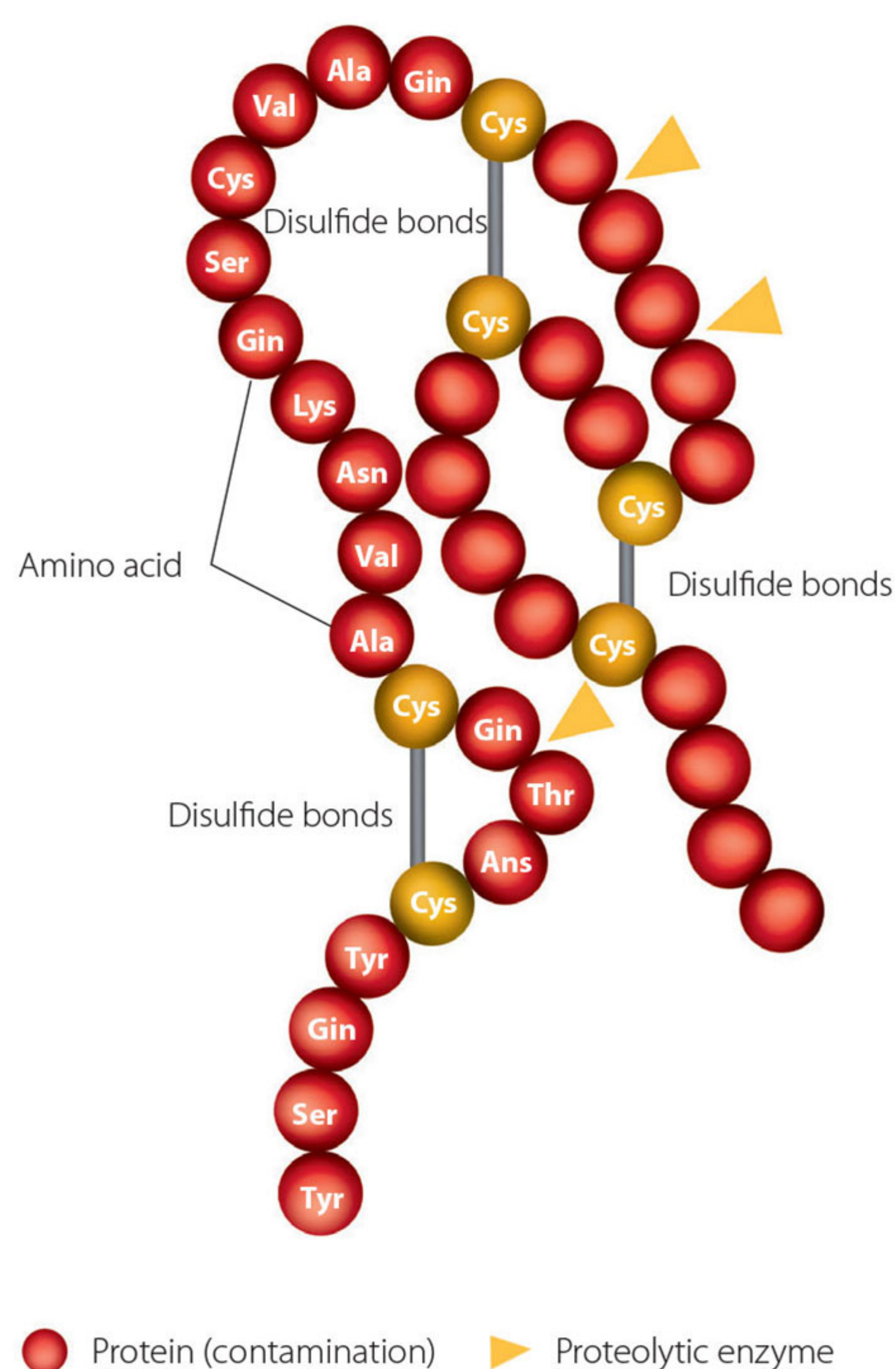


X·tra protection for employees and their surroundings.

The disinfecting effect and short contact times are decisive for occupational safety, as manual reprocessing harbours a potential risk of infection for employees.

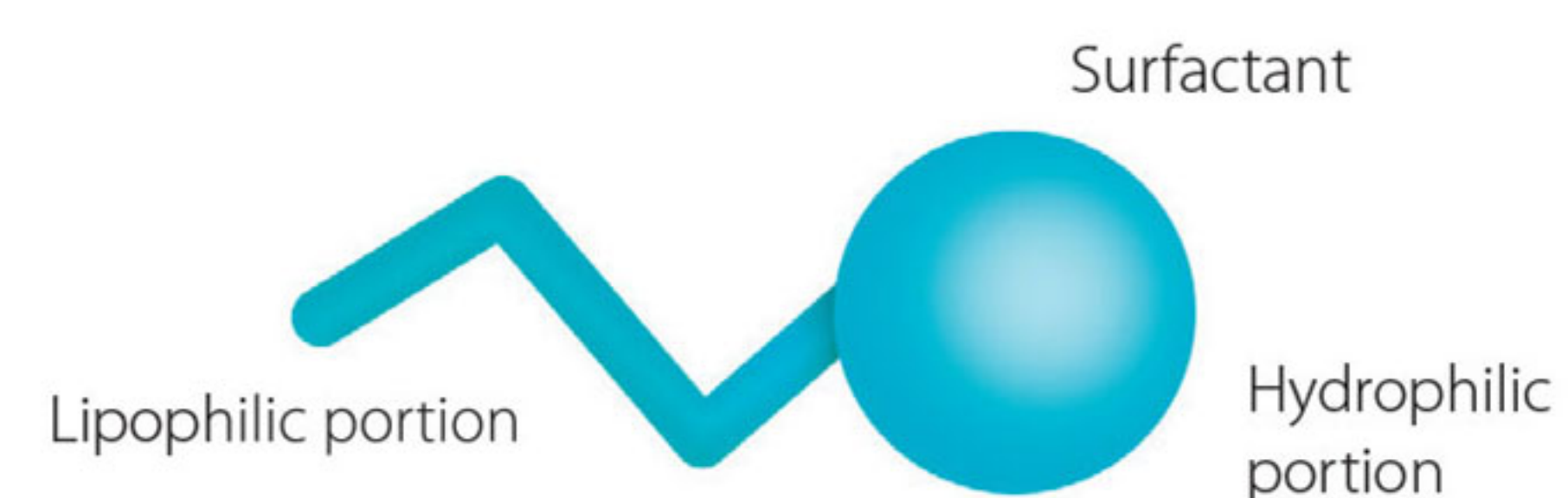
Severely contaminated instruments therefore require potent cleaning and rapid antimicrobial activity. The basic disinfecting effect of gigazyme® X·tra protects employees and their surroundings against contamination with infectious pathogens such as HIV and HBV.

Protein breakdown through enzymes

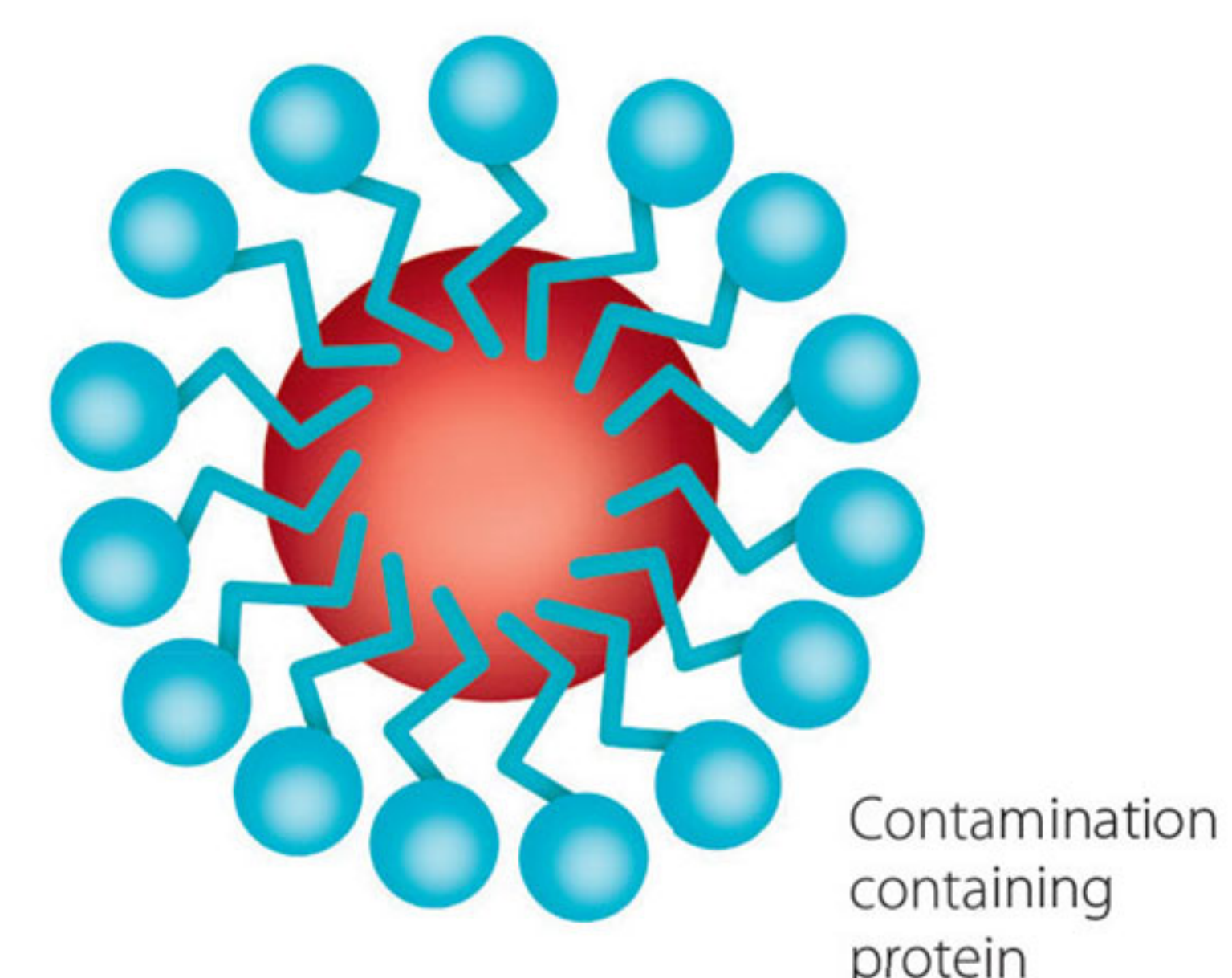


Enzymes accelerate biochemical reactions. The enzyme protease splits proteins into their individual components (peptides, amino acids) and thus reduces contamination risk.

Surfactants – building blocks of a micelle



Contamination containing protein enclosed in micelle



Surfactants consist of a hydrophobic ('waterrepellent') and a hydrophilic ('having an affinity for water') molecular part. They surround materials insoluble in water (e.g. contaminants containing fats) and form small, spherical aggregates which are known as micelles. In this way, contaminants are detached from surfaces and held in suspension and efficient cleaning is made possible.

Manual reprocessing – pre-cleaning / disinfecting pre-cleaning



gigazyme® X-tra

Enzyme-based high-performance detergent with basic disinfecting effect for manual cleaning of endoscopes and surgical instruments.

Our plus

- excellent cleaning performance in combination with staff and environment safety
- suitable for ultrasonic cleaning
- very good material compatibility



Pack size

Carton with 5 x 2 l-bottles

5 l-canister



gigazyme®

Enzymatic cleaner for flexible endoscopes and surgical instruments.

Our plus

- good cleaning performance through a mixture of enzymes
- very good material compatibility
- suitable for ultrasonic cleaning
- economic, as small dosage is needed
- pleasant fragrance

Pack size

Carton with 5 x 2 l-bottles

Manual reprocessing – cleaning disinfection



gigasept® instru AF

**Aldehyde-free disinfection and cleaning for surgical instruments, anesthesia accessories

Our plus

- effective against bacteria (incl. M. terrae), yeasts and enveloped viruses (incl. HBV, HCV, HIV)*
- complies with European norms
- outstanding cleaning power
- very good material compatibility
- pleasant fresh fragrance



Pack size

Carton with 5 x 2 l-bottles

5 l-canister



gigasept® AF Forte

**Aldehyde-free disinfection and cleaning of endoscopes, medical devices and accessories used in anesthesia and care

Our plus

- aldehyde-free
- effective against bacteria, enveloped viruses* (inclu. HIV, HBV, HCV) and mycobacteria
- pleasant fragrance
- shortened action time in ultrasonic baths



Pack size

Carton with 5 x 2 l-bottles

5 l-canister

* in accordance with DW (German Registered Association for Combating Viral Diseases)/RKI Guideline 12 / 2014

** Not for final disinfection of semicritical and critical medical devices.

Manual reprocessing – final disinfection



gigasept® pearls

Active oxygen-based instrument disinfectant for manual cleaning and disinfection with a multi-enzyme formula.



Our plus

- microbiological effectiveness via its synergistic combination of active substances plus active oxygen (concluding virucidal disinfection with 2 % in 10 minutes)
- outstanding cleaning performance via its multi-enzyme formula (protease, lipase and amylase) in combination with a neutral pH (non-protein-fixing) and powerful surfactants
- excellent material compatibility even with sensitive materials such as flexible endoscopes
- contribute to user safety - thanks to its innovative pearl structure - dust-free (no risk of inhalation)
- innovative packaging system for safe and easy removal
- pleasant smell



Pack size

Carton with 4 x 1.5 kg-buckets



gigasept® PAA

Ready-to-use high level disinfectant for the disinfection of flexible endoscopes and medical instruments.



Our plus

- aldehyde-free
- broad microbiological effectiveness. Rapid disinfection within short contact time of 5 min for bactericidal, mycobactericidal, virucidal and sporicidal activities
- prevention of biofilm
- ready-to-use



Pack size

5 l-canister



gigasept® FF (new)

Disinfectant based on succinic dialdehyde for disinfection of surgical instruments and sensitive medical devices e.g. flexible and rigid endoscopes.



Our plus

- complies with current standard methods and European norms
- mycobactericidal, virucidal, tuberculocidal, sporicidal
- outstanding material compatibility
- particularly suitable for thermolabile and thermostable endoscopes
- wide area of application according to tests with high organic contamination
- standing time of clean and not contaminated solution up to 7 days
- formaldehyde-free



Pack size

Carton with 5 x 2 l-bottles

5 l-canister



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