



Medalkan
HYGIENE & DISINFECTION

The Next Generation of Medical Disinfectants



Hospital and clinic product catalog



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The Next generation of Medical Disinfectants





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Our Company



MEDALKAN is a specialised manufacturer of high-quality hygiene and disinfection solutions for the healthcare sector. Founded in 2012, the company has built a strong reputation for innovation, reliability, and scientific excellence.

MEDALKAN range of products have been designed and developed by a team of Greek and French experts. All products are manufactured in Greece using state-of-the-art technologies and validated production processes.

Our company enjoys a strategic geographical location on the Mediterranean basin in Athens, Greece. The Port of Piraeus is one of the largest container ports in Europe and the busiest port hub in the Mediterranean.

This infrastructure allows MEDALKAN to ensure short lead times, rapid deployment of large volumes and secure international supply chains.

MEDALKAN operates in full compliance with international quality standards and is certified according to ISO 9001:2015 and ISO 13485:2016 for the design and manufacture of medical devices.

Our products bear the CE mark in accordance with the 93/42/EEC directive and with the (MDR) 2017/745 regulation for medical devices, ensuring conformity with the highest regulatory and safety requirements.

MEDALKAN applies strict Good Manufacturing Practices (GMP), guaranteeing consistent product quality, full traceability and controlled manufacturing processes.

MEDALKAN offers a complete and continuously expanding portfolio of CE marked high-quality cleaning and disinfecting solutions to meet the most up-to-date requirements for the control of infectious risk.

This includes specialized medical devices for the cleaning and disinfection of surfaces, reprocessing of medical instruments and endoscopes as well as other specific applications.

Specifically developed for professional healthcare use, MEDALKAN solutions are trusted by hospitals, clinics, dental practices, medical laboratories, and examination centers. Particular attention was paid to microbiological efficacy, material compatibility, user safety and environmental responsibility.



The European standards for medical devices

ACTIVITY SPECTRUM	STANDARD PHASE & STEP	TEST CONDITIONS	STRAINS	CONTACT TIME	LOG
BACTERICIDAL*	EN 13727 Phase 2/ Step 1	Conditions: clean / dirty	Pseudomonas aeruginosa Staphylococcus aureus Enterococcus hirae	60 Min.	5 Log
	EN 14561 Phase 2/ Step 2 (Optional)	Conditions: clean / dirty	Pseudomonas aeruginosa Staphylococcus aureus Enterococcus hirae	60 Min.	5 Log
FUNGICIDAL	EN 13624 Phase 2/ Step 1	Conditions: clean / dirty	Candida albicans (yeasticidal) Aspergillus brasiliensis (fungicidal)	60 Min.	4 Log
	EN 14562 Phase 2/ Step 2 (Optional)	Conditions: clean / dirty	Candida albicans (yeasticidal) Aspergillus brasiliensis (fungicidal)	60 Min.	4 Log
TUBERCULOCIDAL / MYCOBACTERICIDAL	EN 14348 Phase 2/ Step 1	Conditions: clean / dirty	Mycobacterium terrae (Tuberculocidal)	60 Min.	4 Log
	EN 14563 Phase 2/ Step 2 (Optional)	Conditions: clean / dirty	M. terrae + M. avium (Mycobactericidal) Mycobacterium terrae (Tuberculocidal)	60 Min.	4 Log
VIRUCIDAL ** (AGAINST ENVELOPED VIRUSES)	DVV (1)/ RKI (2)(2014) Phase 2/ Step 1 Limited Virucidal	Conditions: clean / dirty	BVDV (Bovine viral Diarrhea virus) Vaccinia virus	60 Min.	4 Log
VIRUCIDAL **	EN 14476 Phase 2/ Step 1	Conditions: clean / dirty	Poliovirus Adenovirus Norovirus	60 Min.	4 Log
SPORICIDAL	EN 13704 Phase 2/ Step 1	Conditions: clean / dirty	Bacillus subtilis Bacillus cereus (Optional) Clostridium difficile (Optional)	60 Min.	3 Log
	EN 17126 Phase 2/ Step 1	Clean conditions	Bacillus subtilis Bacillus cereus Clostridium difficile (Optional)	60 Min.	4 Log

* Including all the antibiotic resistant strains as MRSA, Klebsiella pneumoniae, Escherichia coli, Streptococcus pneumoniae, etc.

** Included viruses: HIV, BVDV, Vaccinia Virus, HBV (Hepatitis B), HCV (Hepatitis C), Influenza H1N1, H5N1, H1N8, Zika virus, Herpes simplex, Ebola, Coronavirus.

(1) DVV: Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten / German Association for the Control of Virus Diseases

(2) RKI: Robert Koch Institute - German Federal Health Authority

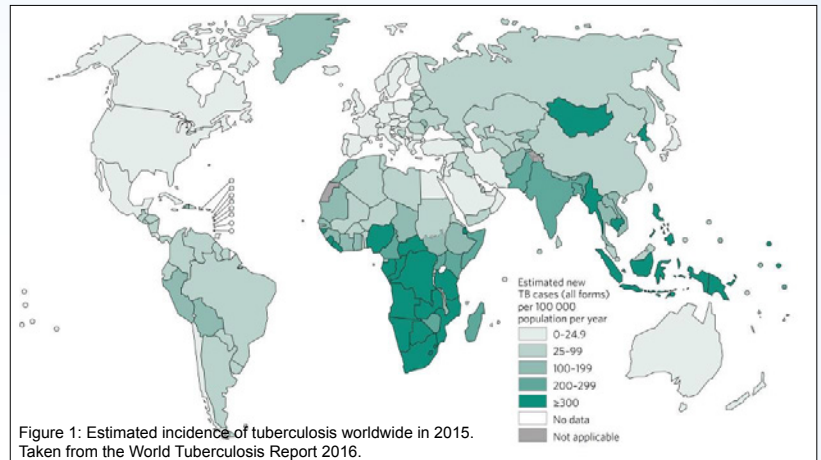
Mycobacteria - Situation and spread

World situation

According to a 2015 World Health Organization (WHO) report, tuberculosis remains one of the top 10 causes of death worldwide.

Despite tremendous efforts by the United Nations to eradicate the disease by 2030, a global epidemic of tuberculosis persists.

Another challenge that we have to face is the effect of globalization, that is, the dramatic increase in the movement of people and individuals that encompasses tourism activities, refugee diasporas and soon climatic migrants.



This ongoing maelstrom has multiple consequences, such as an increasing number of patients infected by non-endemic strains, the spread of multidrug-resistant (MDR) strains from health care-deficient countries, and the frightening specter of the expansion of totally drug-resistant (TDR) strains.

Globally, tuberculosis would affect between 2 and 3 billion people asymptotically.

Among these, only 5 to 15% will develop the disease during their lifetime, with an increased probability in immunocompromised patients, weakened by age or in a state of malnutrition.

In 2015, according to the World Tuberculosis Report 2016 (WHO), the main figures for the disease are as follows:

- In 2015, tuberculosis remained one of the ten leading causes of death worldwide, ahead of HIV, despite a decline in the number of new cases of 1.5% compared to 2014.
- 10.4 million new cases in 2015 for a total of 6.1 million cases notified and reported to WHO (Figure 1).
- In 2020, a total of 1.5 million people died from TB (214,000 of whom also had HIV infection). Globally, tuberculosis is the 13th leading cause of death and the second due to an infectious disease, behind COVID-19 (and before AIDS).

Spread of Mycobacteria

Unlike Tuberculosis, which spreads mainly through air and is not known to replicate outside human or animal hosts, atypical mycobacteria are classic opportunistic pathogens with a very wide distribution in biofilms and in natural and engineered environments. They are inherently more resistant to microbicides and many chemotherapeutic agents as well.

Unlike Tuberculosis, mycobacteria may survive on environmental surfaces for days to months. Water and soil are the main reservoirs for environmental mycobacteria, with the nose and mouth as well as damaged soft tissue and skin being major portals of entry.

Environmental mycobacteria in biofilms in rinse water or inside automated endoscope reprocessors themselves can contaminate semicritical medical devices, leading to iatrogenic infections, pseudo-outbreaks or misdiagnoses.

Improperly reprocessed semicritical devices such as gastroscopes and bronchoscopes can be iatrogenic means of spread.



Microbiological testing (EN 13438 tested with Mycobacterium Terrae and Mycobacterium Avium) ensures that **NOSOSEPT 100**, **NOSOFAST TB**, **NOSOFLOOR**, **NOSOPROTECT**, **NOSOPROTECT 100** and **NOSOCID PAA** provide the best possible safety against Mycobacterium tuberculosis as well as atypical Mycobacteria.

Hand Hygiene

Hands are a very important vector of microbial transmission. Hand hygiene can significantly reduce the risk of cross-transmission of infection in healthcare facilities if properly set up.

For this reason, an antiseptis protocol with precise consecutive actions should be scrupulously observed and applied.

Alcohol-based hand sanitizers (with at least 60% alcohol) are largely used in medical areas but are now also recommended for the general public.

Many situations in a hospital require repeated use of antimicrobial agents (e.g., before invasive procedures, when caring for immunocompromised patients, critical care areas, intensive care nurseries, etc.). These should be chosen carefully based on their active ingredients and characteristics.



MEDALKAN has developed two alcohol-based antiseptic gels, **NOSODERM GEL 70** and **NOSODERM GEL 80**. Their compositions have been prepared with a particular attention to combine efficiency and protection of the skin. Considering damaged skin is an open door to microorganisms, an effective antiseptic gel should prevent dryness by optimizing the hydration of the skin.

Standard hand rubbing procedure



Step 1
Palm to palm



Step 2
Right palm over left dorsum and left palm over right dorsum (five times)



Step 3
Palm to palm with fingers interlaced (five times)



Step 4
Back of fingers to opposing palms with fingers interlocked (five times)



Step 5
Rotational rubbing of right thumb clasped in left palm and vice versa (five times)



Step 6
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa (five times)

NOSODERM[®] GEL

Hydroalcoholic Hand Cleansing and Antiseptic Gels

Non sticky
and non greasy formulations

Leaves the skin clean,
fresh and silky



NOSODERM GEL 70 and NOSODERM GEL 80
have a neutral pH and have been
dermatologically tested on sensitive skin.

NOSODERM GEL 80 Antiseptic Hydroalcoholic Hand Gel

NOSODERM GEL 80 is an antiseptic gel with a broad antimicrobial spectrum. It contains 80% ethyl alcohol. Enriched with moisturizing active ingredients, it preserves the skin hydrolipidic film, thus reducing the risk of dryness and allowing repeated use.

It is recommended for antiseptis:

- Pre and post operative
- Before and after direct contact with a patient
- After contact with blood, body fluids or contaminated surfaces
- Before an aseptic or invasive procedure (samples, injections, venous passages, dressings, etc.)

Composition

Alcohol denat, Aqua (Water), Propanediol, Glycerin, Acrylates/C10-30 Alkyl acrylate cross polymer, Myristyl alcohol, Panthenol.

NOSODERM GEL 80 is a biocide.

Use biocidal products with caution.

Before use, read the label and the product information.

NOSODERM GEL 70 Hydroalcoholic Hand Cleansing Gel

NOSODERM GEL 70 is an alcohol-based hand cleansing gel containing 70% ethyl alcohol. It provides mild antiseptic action for routine hand hygiene applications.

Its moisturizing composition prevents skin dryness and provides a pleasant feeling of freshness and cleanliness.

Properties

- Contains 70% (v/v) of Ethanol
- Mild antiseptic action for frequent daily use
- Dermatologically tested on sensitive skin
- Neutral pH for good skin tolerance
- Moisturizing formulation to reduce skin dryness
- Leaves the skin clean, fresh and silky

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	CONTACT TIME
BACTERICIDAL*	EN 13727	Pseudomonas aeruginosa Staphylococcus aureus Escherichia coli Enterococcus hirae	15 sec.
FUNGICIDAL	EN 13624	Candida Albicans	15 sec.
VIRUCIDAL**	EN 14476	Adenovirus, Norovirus Poliovirus	30 sec. 60 sec.
TUBERCULOCIDAL	EN 14348	Mycobacterium Terrae (Surrogate. M. tuberculosis)	30 sec.
MYCOBACTERICIDAL	EN 14348	Mycobacterium Terrae Mycobacterium Avium	30 sec.
HYGIENIC HANDRUB - Efficacy test carried out under real conditions	EN 1500 (Phase 2 / Step 2)	Escherichia coli	30 sec.
SURGICAL HAND DISINFECTION - Efficacy test carried out under real conditions	EN 12791 (Phase 2 / Step 2)	Resident microbial flora	2 x 60 sec.

* Including all antibiotic resistant bacteria such as MRSA, Escherichia coli, Klebsiella pneumoniae, Streptococcus pneumoniae, etc.)

** Including enveloped viruses such as BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus

NOSODERM GEL 80 - Packaging

- 500 ml. bottle with pump (Ref. 20053)
- 1 litre bottle with flip top cap (Ref. 20055)
- 5 litre canister (Ref. 20054)
- 2 ml. dosing pump for 1 litre bottle (Ref. 20046)

NOSODERM GEL 70 - Packaging

- 80 ml. bottle with flip top cap (Ref. 20044)
- 500 ml. bottle with pump (Ref. 20040)
- 1 litre bottle with flip top cap (Ref. 20041)
- 5 litre canister (Ref. 20045)
- 2 ml. dosing pump for 1 litre bottle (Ref. 20046)

Composition

Alcohol denat, Aqua (Water), Propanediol, Glycerin, Acrylates/C10-30 Alkyl acrylate cross polymer, Myristyl alcohol, Dicaprylyl carbonate, Tetrahydroxypropyl ethylenediamine, Bisabolol, Panthenol, Dimethicone.

NOSODERM GEL 70 is registered as a cosmetic product.
C.P.N.P Registration number: 3642922.

NOSOSEPT® 100

Fast acting broad spectrum surface disinfectant



NOSOSEPT 100 is a ready-to-use, broad-spectrum antimicrobial surface disinfectant spray, developed for the rapid cleaning and disinfection of non-invasive medical device surfaces.

With a validated contact time of 30 seconds, its routine application between patient sessions contributes to effective infection control and supports the prevention of cross-contamination.

NOSOSEPT 100 is intended for use on medical device surfaces in direct contact with patients and healthcare personnel, including trolleys, benches, examination tables and operating room furniture.

The formulation provides high antimicrobial performance, low odour, and residue-free drying, ensuring suitability for frequent application in clinical settings.



Properties

- Active in 30 seconds
- Does not affect the medical equipment
- Bactericidal, fungicidal, tuberculocidal, mycobactericidal
- Virucidal (HBV, HIV, HCV, Herpes, Vaccinia, BVDV, Influenza, Ebola, Coronavirus, Rotavirus,...)
- Does not contain phenols, aldehydes, chlorine or EDTA
- Residue-free drying for clean, streak-free surfaces

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	CONTACT TIME
BACTERICIDAL* (Dirty conditions)	EN 13727	Pseudomonas aeruginosa Staphylococcus aureus Enterococcus hirae	30 sec.
FUNGICIDAL (Dirty conditions)	EN 13624	Candida Albicans Aspergillus Brasillensis (Fungicidal)	30 sec. 5 min.
VIROCIDAL (Dirty conditions)	DVV ⁽¹⁾ /RKI ⁽²⁾ 2014 EN 14476	BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus Rotavirus	30 sec.
TUBERCULOCIDAL (Dirty conditions)	EN 14348	Mycobacterium Terrae (Surrogate M. tuberculosis)	3 min.
MYCOBACTERICIDAL (Dirty conditions)	EN 14348	Mycobacterium Terrae Mycobacterium Avium	3 min.

* Including all antibiotic resistant bacteria such as MRSA, Escherichia coli, Klebsiella pneumoniae, Streptococcus pneumoniae, etc.)

(1) DVV: Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten (German Association for the Control of Virus Diseases)

(2) RKI: Robert Koch Institute - German Federal Health Authority

Certifications

- CE mark according to the Medical Device Directive (Directive 93/42/EEC)
- Medical device class IIa

Packaging

- One litre bottle with spray (Ref. 20003)
- 5 litre refill canister (Ref. 20004)

Physical properties

- Appearance: Transparent solution
- Density: 0.97 g/cm³ at 20°C
- pH: 9.0-9.6 at 20°C
- Odour: Mild (alcohol)
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Composition

Isopropyl alcohol, didecyl-dimethyl ammonium chloride, N-(3-aminopropyl)-N dodecylpropano-1,3-diamine, excipients.

Compatibility

Due to its low alcohol content, NOSOSEPT 100 is friendly to sensitive surfaces while simultaneously providing extremely rapid disinfection times.

NOSOFAST TB®

Foaming disinfectant spray
for medical equipment surfaces



NOSOFAST TB is a ready-to-use, foaming, broad-spectrum antimicrobial disinfectant spray, developed to deliver combined cleaning and disinfection of non-invasive medical device surfaces.

It provides reliable antimicrobial performance to support the protection of patients and healthcare personnel as part of routine infection prevention and control practices.

The alcohol-free formulation is optimized for use on sensitive medical equipment surfaces, including incubators, patient monitors, plexiglass, and other delicate materials where alcohol-based products may be unsuitable.

In addition, NOSOFAST TB is indicated for routine disinfection of general medical device surfaces such as beds, stretchers, work benches and related healthcare equipment.

NOSOFAST TB is residue-free after drying, odorless and formulated to provide high material compatibility, enabling frequent application without adverse effects on treated surfaces.



Properties

- Alcohol-free formulation for sensitive medical equipment
- Broad-spectrum antimicrobial activity with combined cleaning and disinfection
- Foaming action for improved surface coverage and contact
- Suitable for incubators, monitors, plexiglass, and delicate surfaces
- Residue-free and odourless for enhanced user comfort
- Excellent material compatibility for frequent use
- Does not contain phenols, aldehydes, chlorine or EDTA

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	CONTACT TIME
BACTERICIDAL* (Dirty conditions)	EN 13727	<i>Pseudomonas aeruginosa</i> <i>Staphylococcus aureus</i> <i>Enterococcus hirae</i>	30 sec.
FUNGICIDAL (Dirty conditions)	EN 13624	<i>Candida Albicans</i>	30 sec.
VIRUCIDAL (Dirty conditions)	DVV ⁽¹⁾ /RKI ⁽²⁾ 2014	BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus	2 min.
TUBERCULOCIDAL (Dirty conditions)	EN 14348	<i>Mycobacterium Terrae</i> (Surrogate <i>M. tuberculosis</i>)	15 min.
MYCOBACTERICIDAL (Dirty conditions)	EN 14348	<i>Mycobacterium Terrae</i> <i>Mycobacterium Avium</i>	15 min.

* Including all resistant bacteria such as MRSA, *Escherichia coli*, *Klebsiella pneumoniae*, *Streptococcus pneumoniae*, etc.)

(1) DVV: Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten (German Association for the Control of Virus Diseases)

(2) RKI: Robert Koch Institute - German Federal Health Authority

Packaging

- One litre bottle with spray (Ref. 20042)
- 5 litre refill canister (Ref. 20043)

Physical properties

- Appearance: Transparent solution
- Density: 0.99 g/cm³ at 20°C
- pH: 9.5-10.5 at 20°C
- Odour: Neutral
- Storage: 5°C - 35°C
- Stability: 3 years
- Biodegradability: According to OCDE 301D

Composition

N-(3-aminopropyl)-N-dodecylpropano-1,3-diamine, non-ionic surfactants <5%, corrosion inhibitor, pH regulator, excipients

Compatibility

NOSOFAST TB is compatible with most materials such as stainless steel, aluminium, glass, ceramics, hard plastics, ebonite, plexiglass, etc.

Certifications

- CE mark according to the Medical Devices Directive (Directive 93/42/EEC)
- Medical device class IIa

NOSOFAST TB is manufactured in the EU. MEDALKAN satisfies the requirements of ISO 9001:2015 for quality management system and the requirements of ISO 13485:2016 for the design and manufacture of medical devices.

NOSOFLOOR®

Highly concentrated disinfectant
for medical equipment surfaces

NOSOFLOOR is a high-efficacy concentrated solution, developed for the daily cleaning and disinfection of medical device surfaces in hospitals, clinics and other healthcare institutions.

NOSOFLOOR is intended for routine disinfection in critical and patient-near areas, including operating rooms, intensive care units and other high-risk clinical environments.

NOSOFLOOR combines broad-spectrum antimicrobial activity with very good cleaning performance, supporting both effective soil removal and microbial risk reduction.

Its tuberculocidal and mycobactericidal properties make it particularly suitable for daily use in dental clinics, where frequent exposure to saliva and aerosols represents an increased risk of contamination.

The formulation demonstrates excellent compatibility with most commonly used medical and healthcare surface materials, supporting routine application without adversely affecting treated surfaces.

Properties

- High-efficacy concentrated formulation for daily use
- Broad-spectrum antimicrobial activity for high-risk areas
- Very economical: from 0,25% to 1% dilution
- Excellent material compatibility
- Tuberculocidal and mycobactericidal activity for high-risk environments
- Residue-free and odorless for enhanced user comfort
- Does not contain phenols, aldehydes, chlorine or EDTA

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	DOSAGE ml/l - (%)	CONTACT TIME
BACTERICIDAL* (Dirty conditions)	EN 13727	Pseudomonas aeruginosa Staphylococcus aureus Enterococcus hirae	2,5 ml/l - 0.25%	5 Min.
FUNGICIDAL (Dirty conditions)	EN 13624	Candida Albicans	2,5 ml/l - 0.25%	5 Min.
VIRUCIDAL (Dirty conditions)	DVV ⁽¹⁾ /RKI ⁽²⁾ 2014	BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus	10 ml/l - 1%	15 Min.
			7,5 ml/l - 0.75%	30 Min.
TUBERCULOCIDAL (Dirty conditions)	EN 14348	Mycobacterium Terrae (Surrogate M. tuberculosis)	20 ml/l - 2%	15 Min.
			10 ml/l - 1%	60 Min.
MYCOBACTERICIDAL (Dirty conditions)	EN 14348	Mycobacterium Terrae Mycobacterium Avium	10 ml/l - 1%	60 Min.
SPORICIDAL (Dirty conditions)	EN 13704	Bacillus Subtilis	20 ml/l - 2%	15 Min.
			10 ml/l - 1%	60 Min.

* Including all antibiotic resistant bacteria such as MRSA, Escherichia coli, Klebsiella pneumoniae, Streptococcus pneumoniae, etc.)

(1) DVV: Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten (German Association for the Control of Virus Diseases)

(2) RKI: Robert Koch Institute - German Federal Health Authority

Certifications

- CE mark according to the Medical Devices Directive (Directive 93/42/EEC)
- Medical device class IIa



Packaging

- 5 litre canister (Ref. 20025)
- Dosing pump for 5 litre canister (Ref. 20023)

Physical properties

- Appearance: Transparent light pink solution
- Density: 0.99 g/cm³ at 20 °C
- pH: 12.0-12.8 at 20 °C
- pH (1%): 9.5-10.5 at 20 °C
- Odour: Natural eucalyptus essence
- Storage: 5 °C - 35 °C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Composition

N-(3-aminopropyl)-N-dodecylpropano-1,3-diamine, didecyl-diol methyl ammonium chloride, <5% non-ionic surfactants, isopropyl alcohol, corrosion inhibitor, excipients.

Compatibility

NOSOFLOOR is compatible with most materials such as stainless steel, aluminum, glass, ceramics, hard plastics, linoleum, ebonite, etc.

Endoscope reprocessing

The cleaning process



Flexible endoscopes are essential diagnostic and therapeutic medical devices; however, they are also recognised as one of the most complex devices to reprocess.

Numerous published reports have demonstrated that healthcare associated infection outbreaks are more frequently linked to contaminated endoscopes than to any other type of reusable medical device.

During clinical use, endoscopes come into contact with blood, mucus, tissue debris and other organic body fluids. Their long, narrow channels and complex internal structures provide ideal conditions for bacterial adhesion and microbial retention.

Studies have shown that viable microorganisms can still be detected on endoscopes even after cleaning and disinfection when reprocessing is not optimally performed. A major contributing factor to persistent contamination is the formation of biofilms. Under natural conditions, most bacteria exist within biofilms rather than as free-floating (planktonic) organisms. In a biofilm, microorganisms adhere to surfaces and are embedded in a self-produced matrix of extracellular polymeric substances (EPS). This protective matrix provides structural stability and significantly increases resistance to environmental stressors, including disinfectants, antibiotics and physical removal. Biofilms therefore represent a major challenge in endoscope reprocessing, particularly in the moist internal channels where conditions favor their formation and persistence.

Cleaning: The Critical Step in Endoscope Reprocessing

Effective cleaning is the most critical step in the endoscope reprocessing cycle. Proper cleaning is essential to remove organic and inorganic soil and to prevent the development of biofilms that can compromise subsequent disinfection or high-level disinfection processes.

The cleaning step consists of thorough mechanical cleaning of both the external surfaces and internal channels of the endoscope. This includes careful brushing of all accessible channels using an appropriate detergent solution, followed by thorough flushing and rinsing with suitable water quality.

If manual cleaning, brushing and rinsing are not performed correctly and immediately after use, residual protein and organic debris can dry and harden. This significantly increases the risk of biofilm formation, particularly within biopsy and working channels. Inadequate cleaning can leave residual material on internal surfaces, creating a barrier that prevents disinfectants from reaching all contaminated areas. As a result, the overall effectiveness of the disinfection process is compromised.

For this reason, endoscopes should be cleaned immediately after use and prior to the disinfection step using a validated enzymatic detergent specifically designed for endoscope reprocessing.

NOSOZYM and **NOSOZYM 6 PLUS** contain a combination of specific and highly stabilised enzymes. The enzymes break down the soil into tiny fragments, making them water soluble and thus easier to remove by rinsing.

Use **NOSOZYM** or **NOSOZYM 6 PLUS** for endoscope cleaning:

- by manual cleaning
 - in automated endoscope reprocessor (AER)
- (Always follow the manufacturer's instructions)

NOSOZYM and NOSOZYM 6 PLUS are compatible with all major brands of endoscopes. They have been tested and approved by PENTAX MEDICAL®.

NOSOZYM®

Enzymatic detergent for surgical instruments and endoscopes

NOSOZYM is a highly concentrated enzymatic cleaning solution for surgical instruments and flexible endoscopes, developed to deliver effective removal of organic contaminants and bioburden.

The formulation contains a synergistic enzyme system comprising protease, lipase, and amylase, which enzymatically degrade proteins, lipids, polysaccharides and blood residues. This enzymatic synergy promotes efficient cleaning of the internal and external surfaces of endoscope biopsy channels and contributes to biofilm removal.

The non-foaming, neutral pH formulation makes NOSOZYM particularly suitable for flexible endoscopes and sensitive materials.

NOSOZYM can be used in ultrasonic baths, automated endoscope reprocessors, washer-disinfectors and immersion baths, offering flexibility across different reprocessing systems.

NOSOZYM is compatible with all major endoscope brands and is approved by PENTAX MEDICAL®.



Properties

- A new generation of enzymes for an enhanced cleaning action
- Effectively removes organic residues
- Validated cleaning efficiency & biofilm reduction (ISO 15883)
- Very economical (0.15% to 0.5% dilution)
- Neutral pH, non-foaming formulation
- Prevents corrosion and instrument discoloration
- Excellent material compatibility
- Does not contain borax, aldehydes, phenols or EDTA

Composition

Protease, lipase, amylase, non-ionic surfactants <5%, corrosion inhibitor, pH regulator, excipients.

Compatibility

NOSOZYM is compatible with most materials such as stainless steel, aluminum, glass, ceramics, hard plastics, ebonite, etc.

Ultrasonic bath

NOSOZYM can be used in all common types of ultrasonic baths.

Certifications

- CE mark according to the Medical Device Regulation MDR (Regulation 2017/745)
- Medical device class I

Packaging

- 5 litre canister (Ref. 20022)
- Dosing pump for 5 litre canister (Ref. 20023)

Physical properties

- Appearance: Transparent orange solution
- Density: 1.02 g/cm³ at 20°C
- pH: 7.0-8.0 (neutral) at 20°C
- pH (0,5%): 7.0-8.0 (neutral) at 20°C
- Odour: Neutral
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Recommended dosage table

CLEANING METHOD	RECOMMENDED DOSAGE (%) *	RECOMMENDED DOSAGE (ml/l)	WATER TEMP. (°C)	CONTACT TIME
IN IMMERSION BATH	0,5% - 1%	5 ml/l - 10 ml/l	20 - 60 °C	1 - 10 min
IN ULTRASONIC BATH	0,2% - 0,5%	2 ml/l - 5 ml/l	45 - 60 °C	1 - 5 min
IN AUTOMATED REPROCESSOR	0,15% - 0,5%	1,5 ml/l - 5 ml/l	45 - 60 °C	1 - 5 min **

* Always adjust the dosage and contact time depending on the degree of contamination and cleaning method you follow. Recommended dosages can be adjusted or exceeded according to the quality and temperature of the water and the type of washer used.

** Depending on the recommendations of the washer's manufacturer.

NOSOZYM 6 PLUS®

Multi-enzymatic cleaner
for surgical instruments and endoscopes

NOSOZYM 6 PLUS is a very highly concentrated, multi-enzymatic detergent for flexible endoscopes and surgical instruments, developed to deliver superior cleaning performance against complex organic contamination.

NOSOZYM 6 PLUS contains a synergistic enzyme system of 7 enzymes comprising protease, lipase, amylase, pectinase, mannanase and cellulases, designed to enzymatically degrade a wide spectrum of organic substrates, including proteins, lipids, starch, cellulose, polysaccharides and blood deposits.

The multi-enzymatic formulation contributes to effective biofilm removal from the internal channels of endoscopes while maintaining compatibility with sensitive materials.

NOSOZYM 6 PLUS can be used in ultrasonic baths, immersion baths and washer-disinfectors, providing flexibility across different reprocessing environments.

NOSOZYM 6 PLUS is compatible with all major endoscope brands and is approved by PENTAX MEDICAL®.



Properties

- Premium solution for heavily soiled and complex devices
- A synergy of 7 highly stabilized enzymes for a powerful cleaning action
- Validated cleaning efficiency & biofilm reduction (ISO 15883)
- Very economical (0.1% to 0.5% dilution)
- Neutral pH, non-foaming formulation
- Prevents corrosion and instrument discoloration
- Excellent material compatibility
- Does not contain borax, aldehydes, phenols or EDTA

Composition

Protease, lipase, amylase, pectinase, mannanase, cellulases, non-ionic surfactants <5%, corrosion inhibitor, pH regulator, excipients.

Compatibility

NOSOZYM 6 PLUS is compatible with most materials such as stainless steel, aluminum, glass, ceramics, hard plastics, ebonite, etc.

Ultrasonic bath

NOSOZYM 6 PLUS can be used in all common types of ultrasonic baths.

Certifications

- CE mark according to the Medical Device Regulation MDR (Regulation 2017/745)
- Medical device class I

Packaging

- 5 litre canister (Ref. 20033)
- Dosing pump for 5 litre canister (Ref. 20023)

Physical properties

- Appearance: Transparent orange solution
- Density: 1.02 g/cm³ at 20°C
- pH: 7.0-8.0 (neutral) at 20°C
- pH (0,5%): 7.0-8.0 (neutral) at 20°C
- Odour: Neutral
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Recommended dosage table

CLEANING METHOD	RECOMMENDED DOSAGE (%) *	RECOMMENDED DOSAGE (ml/l)	WATER TEMP. (°C)	CONTACT TIME
IN IMMERSION BATH	0,2% - 0,5%	2 ml/l - 5 ml/l	20 - 60 °C	1 - 5 min
IN ULTRASONIC BATH	0,2% - 0,5%	2 ml/l - 5 ml/l	45 - 60 °C	1 - 5 min
IN AUTOMATED REPROCESSOR	0,1% - 0,5%	1 ml/l - 5 ml/l	45 - 60 °C	1 - 5 min **

* Always adjust the dosage and contact time depending on the degree of contamination and cleaning method you follow. Recommended dosages can be adjusted or exceeded according to the quality and temperature of the water and the type of washer used.

** Depending on the recommendations of the washer's manufacturer.

Endoscope reprocessing

Endoscope high level disinfection

There are eight steps involved in the reprocessing of endoscopes: precleaning, rinsing, cleaning, rinsing, disinfection, rinsing, drying and finally storage.

Following thorough cleaning and initial rinsing, high-level disinfection (HLD) is recommended for flexible endoscopes and other semi-critical medical devices. During this step, the endoscope and all removable components should be completely immersed in the high-level disinfectant solution. All internal channels must be fully perfused to ensure complete contact between the disinfectant and all potentially contaminated surfaces.

The appropriate exposure time and temperature for high-level disinfection are specific to each disinfectant and its use concentration.

The choice of disinfectant should consider factors such as microbiological efficacy, material compatibility, occupational safety, environmental impact and compatibility with automated endoscope reprocessors (AERs), where applicable.

Chemicals commonly used for the high-level disinfection of endoscopes and other semi-critical medical devices include aldehydes (i.e., glutaraldehyde and ortho-phthalaldehyde) and peracetic acid.

HIGH LEVEL DISINFECTION CHEMISTRY COMPARATIVE TABLE

	GLUTARALDEHYDE (GA)	ORTHO-PHTHALALDEHYDE (OPA)	NOSOCID PAA (PAA)
PERFORMANCE	<ul style="list-style-type: none"> Coagulates blood and fixes tissue to surfaces favouring the formation of Biofilm Periodic evaluation of the lung function of the professionals who handle the solution is required No activation required Volatile Good stability (14 to 28 days) 	<ul style="list-style-type: none"> Volatile, but much less than glutaraldehyde Neutralisation of the product is recommended prior to disposal More expensive than glutaraldehyde No activation required No irritating odour Good stability (7 to 14 days) 	<ul style="list-style-type: none"> Does not coagulate blood or fix tissues to surfaces Full disinfection spectrum in 5 minutes Eliminates biofilm No adverse health effects to operators under normal operating conditions Low temperature liquid immersion sterilisation Environmentally friendly. Decomposes into oxygen and water Good stability (15 days)
EFFICIENCY	<ul style="list-style-type: none"> Low and slow sporicidal and mycobactericidal activity at room temperature 	<ul style="list-style-type: none"> Low and slow activity on bacterial spores at room temperature 	<ul style="list-style-type: none"> Rapid sterilisation Rapid sporicidal activity Full disinfection spectrum in 5 minutes at room temperature Sporicidal on <i>Bacillus cereus</i> and on all bacterial spores (tested according to the latest standard EN 17126:2019)*
SAFETY	<ul style="list-style-type: none"> Sensitizing, irritant to skin, eyes and respiratory tract from glutaraldehyde vapors Ventilation is highly recommended Allergic contact dermatitis Adverse effects for patients after insufficient rinsing of devices Can cause colitis in patients The negative impact of aldehydes on human health has been well-documented. Environmental health and safety measures are expensive 	<ul style="list-style-type: none"> Irritant for eyes and respiratory tract Stains skin Little data on hazards of long-term exposure and on safe exposure levels Anaphylaxis reactions with repeated cystoscopy in cancer patients 	<ul style="list-style-type: none"> Irritant if in contact with eyes No other adverse effect
MATERIAL COMPATIBILITY	<ul style="list-style-type: none"> Excellent material compatibility 	<ul style="list-style-type: none"> Excellent material compatibility 	<ul style="list-style-type: none"> Excellent material compatibility

MEDALKAN has formulated **NOSOCID PAA**, high level disinfectant based on peracetic acid and hydrogen peroxide for the cold sterilisation of thermosensitive instruments and endoscopes. Made up of a base solution and an activator, the mixed solution is ready-to-use and lasts 15 days. Peracetic acid concentration is easy to check with **NOSOCID PAA TEST STRIPS** to ensure optimal efficiency.

NOSOCID PAA provides a full spectrum of antimicrobial activity (bactericidal, fungicidal, fully virucidal, tuberculocidal, mycobactericidal and sporicidal*) in a contact time of only 5 minutes.

* **NOSOCID PAA** has been tested according to DIN EN 17126:2019 which is the latest standard for the evaluation of sporicidal activity of chemical disinfectants in the medical area.

NOSOCID PAA®

High level disinfectant based on peracetic acid

NOSOCID PAA is a high level disinfectant especially formulated for the cold sterilisation of endoscopes and thermosensitive instruments. It is based on a synergy of peracetic acid and hydrogen peroxide.

It combines a broad spectrum of antimicrobial activity, rapid contact times and an enhanced material compatibility.

It is recommended for the cold sterilisation of all types of endoscopes (bronchoscopes, gastroscopes, duodenoscopes, naso-laryngo-pharyngoscopes, laparoscopes, etc.), surgical instruments, anesthetic and heat-sensitive medical devices.

NOSOCID PAA does not fix proteins, eliminates biofilm and maintains antimicrobial performance even in the presence of organic matter, contributing to reliable high-level disinfection.

Formulated with effective corrosion inhibitors, NOSOCID PAA is designed to help protect common endoscope materials and support repeated use in reprocessing workflows.



Properties

- Ready-to-use solution
- Rapid action: full spectrum in 5 min.
- Effective even in the presence of organic matter
- Eliminates biofilm
- Excellent material compatibility with most common sensitive materials
- Stability of the ready-to-use solution: 15 days
- Easy checking of PAA concentration with test strips
- No aldehydes, safe for the user
- Decomposes into water and oxygen

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	CONTACT TIME
BACTERICIDAL* (Clean conditions)	EN 13727:2012 + A2:2015 (phase 2 / step 1) EN 14561:2006 (phase 2 / step 2)	Pseudomonas aeruginosa Staphylococcus aureus Enterococcus hirae	5 Min.
FUNGICIDAL (Clean conditions)	EN 13624:2013 (phase 2 / step 1) EN 14562:2006 (phase 2 / step 2)	Candida Albicans Aspergillus Brasiliensis	5 Min.
VIRUCIDAL** (Clean conditions)	EN 14476:2013 + A2:2019 (phase 2 / step 1)	Adenovirus, Norovirus Poliovirus	5 Min.
TUBERCULOCIDAL (Clean conditions)	EN 14348:2005 (phase 2 / step 1) EN 14563:2009 (phase 2 / step 2)	Mycobacterium Terrae (Surrogate M. tuberculosis)	5 Min.
MYCOBACTERICIDAL (Clean conditions)	EN 14348:2005 (phase 2 / step 1) EN 14563:2009 (phase 2 / step 2)	Mycobacterium Terrae Mycobacterium Avium	5 Min.
SPORICIDAL*** (Clean conditions)	EN 17126:2019 (phase 2 / step 1)	Bacillus subtilis Clostridioides difficile Bacillus cereus	5 Min.

* Including all antibiotic resistant bacteria such as MRSA, Escherichia coli, Klebsiella pneumoniae, Streptococcus pneumoniae, etc.)

** Including enveloped viruses such as BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus

*** NOSOCID PAA has been tested according to DIN EN 17126:2019 which is the latest standard for the evaluation of sporicidal activity of chemical disinfectants in the medical area

Packaging

- 5 litre canister (base + activator solution) - Ref. 20050
- NOSOCID PAA test strips (tube of 50 strips) - Ref. 20051

Physical properties

- Appearance: Transparent solution
- Density: 1,02 g/cm³ at 20°C
- pH: 4.5-6.0 (neutral) at 20°C
- Odour: Mild (acetic acid)
- Storage: 5°C - 35°C
- Stability: 24 months
- Biodegradability: According to OCDE 301D

Compatibility

NOSOCID PAA has been tested on most common materials such as stainless steel, polycarbonates, polyurethane, polysulfone, polyethylene, aluminum, glass, silicones, hard plastics and elastomers.

NOSOCID PAA is not compatible with copper, iron and brass. Compatibility with sensitive materials and plated alloys should be tested before use.

Corrosion tests have been carried out by an independent state laboratory in order to ensure safety and transparency. (Test report is available upon request.)

Composition

Peracetic acid, hydrogen peroxide, acetic acid, corrosion inhibitors, pH regulator, excipients.

Certifications

- CE mark according to the Medical Devices Directive (Directive 93/42/EEC)
- Medical device class IIb

NOSOCID PAA is manufactured in the EU. MEDALKAN satisfies the requirements of ISO 9001:2015 for quality management system and the requirements of ISO 13485:2016 for the design and manufacture of medical devices.

Instrument disinfection

The challenge of pre-disinfection

Why Pre-Disinfection Is Critical

Pre-disinfection is a key early step in the instrument reprocessing workflow and plays an important role in controlling bioburden, preventing drying of organic contaminants and improving overall reprocessing effectiveness.

Immediately after use, surgical instruments are heavily contaminated with blood, proteins, lipids and other biological materials. If these soils are allowed to dry, they can become firmly fixed to instrument surfaces, making subsequent cleaning more difficult and less effective.



Instrument Pre-Disinfection Process

Pre-disinfection helps to reduce the initial microbial load, limits occupational exposure risks for healthcare personnel and keeps organic soil moist and easier to remove during subsequent cleaning. In addition, early pre-treatment supports improved cleaning performance, reduces the risk of biofilm formation on instrument surfaces and contributes to more consistent and reliable downstream disinfection and sterilisation outcomes.

A pre-disinfection procedure is highly recommended for reusable and immersible medical devices prior to transport and further reprocessing. Pre-disinfection consists of immersing soiled surgical instruments in a combined detergent and disinfectant solution such as **NOSOPROTECT**, before their transfer to the Central Sterile Services Department (CSSD). This step helps reduce microbial load, prevents drying of organic residues and facilitates subsequent cleaning.

For these reasons, pre-disinfection is widely recommended as a best practice in modern CSSD workflows, particularly in high-throughput surgical environments and when transport times between the operating room and CSSD are extended. If transport time is prolonged, soiled instruments should be pre-treated immediately after use and kept moist using a disinfecting spray solution such as **NOSOPROTECT 100**, in order to limit the risk of microbial transmission and to prevent drying of contaminants during transport.

Therefore, MEDALKAN has formulated:

- **NOSOPROTECT** - Highly concentrated mycobactericidal medical & surgical instrument disinfectant.
- **NOSOPROTECT 100** - Foaming disinfectant spray for instrument pre-treatment.

Both products combine a powerful cleaning action with a broad spectrum of antimicrobial activity (including mycobacteria such as *Mycobacterium tuberculosis*) supporting early microbial load reduction prior to full reprocessing.

Since medical and surgical instruments represent a significant investment for healthcare facilities, both **NOSOPROTECT** and **NOSOPROTECT 100** have been developed with particular attention to material compatibility. Their formulations are designed to help protect sensitive materials and support resistance to corrosion and discoloration, thereby contributing to extended instrument lifespan and preservation of instrument performance.

NOSOPROTECT®

Highly concentrated mycobactericidal instrument disinfectant

NOSOPROTECT is a highly concentrated mycobactericidal instrument disinfectant combining excellent cleaning and disinfection performance in a single process.

NOSOPROTECT provides a broad-spectrum antimicrobial efficacy, including tuberculocidal and mycobactericidal activity while effectively removing organic soils such as blood, lipids, and polysaccharides.

Its advanced formulation is optimised for use on heat-sensitive materials and instrumentation like scalpels, curettes, forceps, scissors, specula, mirrors, stethoscopes or similar devices.

NOSOPROTECT helps protect instruments against corrosion and discoloration, supporting longer instrument lifespan and reduced maintenance costs.

It can be used in ultrasonic and immersion baths, allowing flexible integration into reprocessing workflows.



Properties

- Highly concentrated mycobactericidal disinfectant
- Broad-spectrum antimicrobial activity
- Very economical: 0,25 - 1% dilution
- Effective removal of organic residues
- Used in immersion or ultrasonic baths
- Prevents corrosion and instrument discoloration
- Fully compatible even with the most sensitive materials
- Does not contain phenols, aldehydes, chlorine or EDTA

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	DOSAGE ml/l - %	CONTACT TIME
BACTERICIDAL* (Dirty conditions)	EN 13727	Pseudomonas aeruginosa Staphylococcus aureus Enterococcus hirae	2,5 ml/l - 0.25%	5 Min.
FUNGICIDAL (Dirty conditions)	EN 13624	Candida Albicans	2,5 ml/l - 0.25%	5 Min.
VIRUCIDAL (Dirty conditions)	DVV ⁽¹⁾ /RKI ⁽²⁾ 2014	BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus	10 ml/l - 1%	15 Min.
			7,5 ml/l - 0.75%	30 Min.
TUBERCULOCIDAL (Dirty conditions)	EN 14348	Mycobacterium Terrae (Surrogate M. tuberculosis)	20 ml/l - 2%	15 Min.
			10 ml/l - 1%	60 Min.
MYCOBACTERICIDAL (Dirty conditions)	EN 14348	Mycobacterium Terrae Mycobacterium Avium	10 ml/l - 1%	60 Min.
SPORICIDAL (Dirty conditions)	EN 13704	Bacillus Subtilis	20 ml/l - 2% 10 ml/l - 1%	15 Min. 60 Min.

* Including all the antibiotic resistant strains as MRSA, Klebsiella pneumoniae, Escherichia coli, streptococcus pneumoniae, etc.

1) DVV: Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten (German Association for the Control of Virus Diseases)

2) RKI: Robert Koch Institute - German Federal Health Authority

Certifications

- CE mark according to the Medical Devices Directive (Directive 93/42/EEC)
- Medical device class IIb

NOSOPROTECT is manufactured in the EU. **MEDALKAN** satisfies the requirements of **ISO 9001:2015** for quality management system and the requirements of **ISO 13485:2016** for the design and manufacture of medical devices.

Packaging

- 5 litre canister (Ref. 20012)
- Dosing pump for 5 litre canister (Ref. 20023)

Physical properties

- Appearance: Transparent solution
- Density: 0.99 g/cm³ at 20°C
- pH: 12.0-12.8 at 20°C
- pH (1%): 9.5-10.5 at 20°C
- Odour: Neutral
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: according to OCDE 301D

Ultrasonic bath

NOSOPROTECT can be used in all common types of ultrasonic baths.

Compatibility

NOSOPROTECT is compatible with most materials such as stainless steel, aluminium, glass, ceramics, hard plastics, ebonite, etc.

NOSOPROTECT is not compatible with disinfecting preparations containing aldehydes.

Composition

N-(3-aminopropyl)-N-dodecylpropano-1,3-diamine, didecyl-dimethyl ammonium chloride, non-ionic surfactants <5%, isopropyl alcohol, corrosion inhibitor, anti-foaming agent, excipients.

NOSOPROTECT 100[®]

Foaming disinfectant spray
for instrument pre-treatment

NOSOPROTECT 100 is a disinfecting foaming spray with a high detergency efficacy for the rapid pre-disinfection of surgical instruments immediately after use.

NOSOPROTECT 100 keeps the instruments moist, protects from corrosion and avoids organic residue deposits such as blood or proteins from drying.

It makes the reprocessing of instruments significantly safer, easier and reduces the risk of infection between the operating room and the Central Sterile Service Department.

NOSOPROTECT 100 contains a complex of highly stabilized enzymes, surfactants, amines and corrosion inhibitors, providing enhanced cleaning efficiency while protecting sensitive materials.

NOSOPROTECT 100 does not contain alcohol, quaternary ammonium compounds (QAC), phenols, aldehydes, chlorine, EDTA, fragrances or colorants.

Properties

- Ready-to-use sprayable foaming solution
- High efficiency cleaning and disinfection
- Keeps the instruments moist up to 72 hours
- Prevents fixation of organic soils
- Protects from corrosion and instrument discoloration
- Bactericidal, Fungicidal, Tuberculocidal, Mycobactericidal
- Virucidal (HBV, HIV, HCV, Herpes, Vaccinia, BVDV, Influenza, Ebola, Coronavirus)
- Fully compatible even with sensitive materials
- Free of Alcohol, QAC, aldehyde, phenol or EDTA

Disinfecting properties

ACTIVITY SPECTRUM	STANDARD	STRAINS	CONTACT TIME
BACTERICIDAL* (Dirty conditions)	EN 13727	<i>Pseudomonas aeruginosa</i> <i>Staphylococcus aureus</i> <i>Enterococcus hirae</i>	5 Min.
FUNGICIDAL (Dirty conditions)	EN 13624	<i>Candida Albicans</i>	5 Min.
VIRUCIDAL (Dirty conditions)	DVV ⁽¹⁾ /RKI ⁽²⁾ 2014	BVDV, Vaccinia, HBV, HIV, HCV, Ebola, Herpes, Influenza H1N1, H5N1, Coronavirus	2 Min.
TUBERCULOCIDAL (Dirty conditions)	EN 14348	<i>Mycobacterium Terrae</i> (Surrogate: <i>M. tuberculosis</i>)	15 Min.
MYCOBACTERICIDAL (Dirty conditions)	EN 14348	<i>Mycobacterium Terrae</i> <i>Mycobacterium Avium</i>	15 Min.

* Including all the antibiotic resistant strains as MRSA, *Klebsiella pneumoniae*, *Escherichia coli*, *Streptococcus pneumoniae*, etc.

1) DVV: Deutsche Vereinigung zur Bekämpfung der Viruskrankheiten (German Association for the Control of Virus Diseases)

2) RKI: Robert Koch Institute - German Federal Health Authority



Packaging

- One litre bottle with spray (Ref. 20034)
- 5 litre refill canister (Ref. 20008)

Physical properties

- Appearance: Foaming transparent solution
- Density: 1.03 g/cm³ at 20 °C
- pH: 9.5-10.5 at 20 °C
- Odour: Neutral
- Storage: 5 °C - 35 °C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Compatibility

NOSOPROTECT 100 is compatible with most materials such as stainless steel, aluminium, glass, ceramics, hard plastics, rubber, plexiglass, polycarbonate, ebonite, etc.

NOSOPROTECT 100 is not compatible with disinfecting preparations containing aldehydes.

Composition

Enzymes (protease, lipase, amylase), N-(3-aminopropyl)-N-dodecylpropano-1,3-diamine, non-ionic surfactants <5%, corrosion inhibitor, wetting agent, excipients.

Certifications

- CE mark according to the Medical Device Directive (Directive 93/42/EEC)
- Medical device class IIb

Instrument cleaning

Manual and automated reprocessing

Proper instrument cleaning is a critical step in the overall instrument reprocessing cycle. This task must be performed with particular care by trained and competent personnel within the Central Sterile Services Department (CSSD) of any healthcare facility.

Effective cleaning and disinfection processes significantly reduce the risk of cross-contamination between medical devices and patients, thereby contributing to the prevention of healthcare-associated (nosocomial) infections. Thorough removal of organic and inorganic soil is essential to ensure that subsequent disinfection and sterilisation processes can achieve their intended microbiological performance.

CSSDs typically use two main methods for medical and surgical instrument cleaning:

- Manual cleaning (immersion bath / conventional hand washing)
- Automated cleaning in washer-disinfectors

In both cases, the use of an appropriate, validated detergent is mandatory to ensure effective soil removal, operator safety, protection of instruments and equipment.



For manual cleaning in immersion baths, the use of a detergent containing enzymes is highly recommended to facilitate the removal of organic deposits such as proteins, fats, starches and blood residues. Enzymes enhance cleaning efficiency by breaking down complex organic materials, making them easier to remove through mechanical action and rinsing.

Automated washer-disinfectors play a central role in modern CSSD operations. They provide standardized, validated, and reproducible cleaning processes significantly reducing operator variability and supporting consistent reprocessing quality.

The performance of a washer-disinfector cycle depends not only on mechanical action, temperature, water quality, but also critically on the selection of appropriate chemical detergents and process additives. The use of a correctly formulated detergent such as **NOSOCLEAN** is essential to achieve effective soil removal, prevent residue formation, protect instruments, and maintain washer-disinfector performance over time.

Following alkaline cleaning, the use of an acidic neutralising agent like **NEUTRALKAN** or **CITRALKAN** is recommended. Neutralisation removes alkaline residues from instrument surfaces and internal washer components, helping to prevent chemical carryover, corrosion, scale formation and long-term material damage.

Afterwards, a final rinse stage is essential to remove residual chemicals and to promote rapid, uniform drying of instruments. **NOSOCLEAR** is specifically formulated to optimize final rinse performance, delivering a spotless finish and enhanced drying efficiency.

Together, **NOSOCLEAN**, **CITRALKAN / NEUTRALKAN**, and **NOSOCLEAR** form a fully integrated automated reprocessing system designed to deliver reproducible, validated cleaning performance, enhanced process safety and optimal protection of instruments and washer-disinfectors.

For optimum results and to ensure full compatibility between chemicals, MEDALKAN strongly recommends the use of its complete range of especially formulated reprocessing products at every step:

- **NOSOCLEAN** for effective and safe cleaning of surgical instruments
- **CITRALKAN** or **NEUTRALKAN** for neutralisation of alkaline residues and removal of scale
- **NOSOCLEAR** to support efficient final rinsing and uniform drying of instruments

NOSOCLEAN®

Alkaline detergent for the automated reprocessing of surgical instruments

NOSOCLEAN is a highly concentrated and efficient alkaline detergent especially formulated for the cleaning of surgical instruments, medical equipment, ophthalmological instruments, anesthetic and endoscopic equipment, laboratory glassware and similar applications.

Formulated with alkaline agents, surfactants, highly stabilized enzymes and powerful corrosion inhibitors, NOSOCLEAN makes the dissolution of organic residues such as fat and protein deposits easier while effectively contributing to biofilm removal.

NOSOCLEAN is compatible with heat-resistant and heat-sensitive instruments. NOSOCLEAN has been specially developed and gives excellent cleaning results in washers from all major brands and is very efficient in ultrasonic or immersion baths.

Properties

- Drastically efficient due to the specific combination of alkaline agents, surfactants and new generation of stabilized enzymes
- Validated cleaning efficiency & biofilm reduction (ISO 15883)
- Does not leave any residues
- Very economical concentrated dosing
- Follows the guidelines of the Robert Koch Institute (RKI) concerning the decontamination of surgical instruments from prions (Creutzfeldt-Jacob disease).
- Can be used in soft or hard water
- Non-foaming formulation, prevents corrosion and instrument discoloration
- Compatible with heat-sensitive and heat-resistant instruments

Composition

< 5% non-ionic and anionic surfactants, enzymes, chelating agent, corrosion inhibitor, pH regulator

Compatibility

NOSOCLEAN is compatible with most materials such as stainless steel, glass, ceramics, hard plastics, ebonite, etc. Material compatibility with sensitive materials should always be checked before use.

Certifications

- CE mark according to the Medical Device Regulation MDR (Regulation 2017/745)
- Medical device class I



Packaging

- 5 litre canister (Ref. 20026)
- 10 litre canister (Ref. 20027)
- Dosing pump for 5 litre canister (Ref. 20023)

Physical properties

- Appearance: Transparent solution
- Density: 1.02 g/cm³ at 20°C
- pH: 10.00-10.50 at 20°C
- pH (1% in deionised water): 10.50-10.80 at 20°C
- Viscosity: <50 mPas at 20°C
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Recommended dosage table

CLEANING METHOD	RECOMMENDED DOSAGE (%) *	RECOMMENDED DOSAGE (ml/l) *	WATER TEMP. (°C)	CONTACT TIME
IN IMMERSION BATH	0,4% - 2%	4 ml/l - 20 ml/l	20 - 60 °C	5 - 15 min
IN ULTRASONIC BATH	0,4% - 2%	4 ml/l - 20 ml/l	20 - 60 °C	5 - 10 min
IN AUTOMATED REPROCESSOR	0,1% - 1%	1 ml/l - 10 ml/l	55 - 95 °C	5 - 20 min **
	0,5% (standard dosage)	5 ml/l	60 °C	5 min

* Always adjust the dosage and contact time depending on the degree of contamination and cleaning method you follow. Recommended dosages can be adjusted or exceeded according to the quality and temperature of the water and the type of washer used.

** Depending on the recommendations of the washer's manufacturer.

NEUTRALKAN®

Acidic neutralizing agent
& Instrument renovator

CITRALKAN®

Acidic neutralizing agent for the
reprocessing of instruments

NEUTRALKAN and CITRALKAN are acidic detergents. They are developed for the removal of limescale, rust stains and mineral deposits off the instruments as well as the inside walls of washer-disinfectors.

Those products are designed for use in washer-disinfectors or in immersion bath as a neutralising agent for alkaline residues on surgical instruments and laboratory glassware. They support optimized cleaning chemistry and enhanced surface appearance.

In immersion bath applications, NEUTRALKAN acts as a powerful instrument renovator, removing rust stains and restoring the original appearance and brilliance of degraded or discolored instruments.



	NEUTRALKAN	CITRALKAN
PROPERTIES	<ul style="list-style-type: none"> Restores the initial brilliance of degraded or discolored instruments Removes alkaline residues, mineral scale and rust stains Restores stainless steel surface finish Keeps the washer-disinfector's chamber clean and shiny Very economical: 0.05% to 0.4% dilution Does not contain any surfactants Prevents corrosion and instruments discoloration 	<ul style="list-style-type: none"> Removes alkaline residues, mineral scale and rust stains Acidic pre-cleaning of instruments and laboratory glassware Keeps the washer-disinfector's chamber clean and shiny Based on organic acids Very economical: 0,1% to 0,2% dilution Does not contain any surfactants, prevents corrosion and instrument discoloration
PHYSICAL PROPERTIES	<ul style="list-style-type: none"> Appearance: Transparent solution Density: 1.50 g/cm³ at 20°C pH (0,5 - 4 ml/l.): <2 at 20°C Viscosity: <20 mPas at 20°C Storage: 5°C - 35°C Stability: 3 Years Biodegradability: According to OCDE 301D 	<ul style="list-style-type: none"> Appearance: Transparent solution Density: 1,15 g/cm³ at 20°C pH (1 - 2 ml/l.): <3 at 20°C Viscosity: <10 mPas at 20°C Storage: 5° - 35°C Stability: 3 Years Biodegradability: According to OCDE 301D
PACKAGING	<ul style="list-style-type: none"> 5 litre canister (Ref. 20028) 10 litre canister (Ref. 20029) 	<ul style="list-style-type: none"> 5 litre canister (Ref. 20076) 10 litre canister (Ref. 20077)
COMPOSITION	Citric acid, Phosphoric acid > 50%	Citric acid ≥ 40%, Corrosion inhibitors
DOSAGE	<ul style="list-style-type: none"> In washer-disinfectors at a dilution from 0,5 ml/l. (0,05%) to 4 ml/l. (0,4%). In immersion bath at a dilution from 20 ml/l. (2%) to 40 ml/l. (4%). <p>The dilution rate depends on the quality and temperature of the water. The solution has to be rinsed off after use. The use of deionized water should be preferred.</p>	<ul style="list-style-type: none"> In washer-disinfectors at a dilution from 1 ml/l. (0,1%) to 2 ml/l. (0,2%). <p>The dilution rate depends on the quality and temperature of the water. The solution has to be rinsed off after use. The use of deionized water should be preferred.</p>
COMPATIBILITY	Compatible with most materials like stainless steel, glass, ceramics and acid resistant materials. Material compatibility with sensitive materials should always be checked before use	
CERTIFICATIONS	CE mark according to the Medical Device Regulation MDR (Regulation 2017/745) Medical device class I	

INSTRUMENT AUTOMATED REPROCESSING

NOSOCLEAR®

Rinse aid for the automated reprocessing of medical and surgical instruments

NOSOCLEAR is a highly concentrated rinse aid specifically formulated for fast, spot-free drying of surgical instruments, laboratory glassware and other sensitive medical devices in automated reprocessing systems.

NOSOCLEAR reduces the surface tension of water on instrument surfaces, promoting rapid sheeting and efficient drying without leaving residues or water spots.

NOSOCLEAR is intended for use in washer-disinfectors, cart washers, tunnel washers and other automated instrument reprocessing equipment.

Properties

- Drastically shortens drying time
- Leaves the instruments filmless and spotfree
- Optimized for final rinse in washer-disinfectors
- Very economical: 0,01% to 0,03% dilution
- Effective in soft and hard water
- Non-foaming formulation for automated systems
- Prevents corrosion and instrument discoloration

Composition

Non-ionic surfactants 15% - 20%, phosphonates, corrosion inhibitor, pH regulator, excipients.

Compatibility

NOSOCLEAR is compatible with most materials such as stainless steel, aluminum, glass, ceramics, hard plastics, ebonite, etc.

Material compatibility with sensitive materials should always be checked before use.

Certifications

- CE mark according to the Medical Device Regulation MDR (Regulation 2017/745)
- Medical device class I
- NOSOCLEAR has been tested according to ISO 10993-1 and is not toxic



Packaging

- 5 litre canister (Ref. 20030)
- 10 litre canister (Ref. 20031)

Physical properties

- Appearance: Transparent yellow solution
- Density: 1.02 g/cm³ at 20°C
- pH: 6.0-7.0 at 20°C
- pH (0,2-0,8ml/l): 7.0-8.0 (neutral) at 20°C
- Viscosity: <50 mPas at 20°C
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Dosage

NOSOCLEAR is to be used in washer-disinfectors during the rinsing cycle at a dilution from 0,1 ml/l. (0,01%) to 0,3 ml/l. (0,03%).

The dilution rate depends on the quality and temperature of the rinse water. For best results, the use of deionised water is preferred.

A complete range of detergents for automated bedpan reprocessing

Reliable reprocessing for infection prevention and equipment protection

The safe handling and reprocessing of bedpans and other human waste containers is a critical element of infection prevention and control in healthcare facilities.

These items are exposed to high levels of organic contamination and potential pathogens, making effective and consistent reprocessing essential to protect patients, staff, and the healthcare environment.

Specially formulated bedpan washer detergents play a key role in supporting effective reprocessing by:

- Enhancing the removal of organic soils such as proteins, fats, and biological residues
- Supporting reliable hygiene outcomes and reducing the risk of cross-contamination
- Helping maintain validated reprocessing processes
- Protecting washer-disinfector components from limescale, corrosion, and residue buildup
- Supporting efficient drying and a clean, hygienic final appearance



In addition to hygiene performance, the correct selection of detergents contributes to the long-term reliability and service life of bedpan washer-disinfectors.

For these reasons, healthcare facilities increasingly rely on purpose-designed detergent systems that combine effective cleaning performance with equipment protection and process reliability.

Compatibility and equipment protection

NOSOMATIC SK1 and **NOSOMATIC SK2** are specifically formulated for use in automated bedpan washer-disinfectors in accordance with international reprocessing practices.

The products are designed to support validated reprocessing processes and must be used in accordance with the washer-disinfector manufacturer's instructions.

The system supports:

- Use in automated bedpan washer-disinfectors
- Compatibility with common materials such as stainless steel, plastics, ceramics, and glass
- Reliable performance in soft and hard water conditions
- Protection of washer-disinfector components through scale control and corrosion-inhibiting properties

For optimum hygiene performance, chemical compatibility and equipment protection, MEDALKAN strongly recommends the use of the complete, specially formulated bedpan reprocessing range at every stage:

- **NOSOMATIC SK1** for a high performance and safe cleaning
- **NOSOMATIC SK2** for effective limescale control, a spotless finish and accelerated drying

NOSOMATIC® SK1

Alkaline detergent for bedpan washer-disinfectors

NOSOMATIC SK1 is a highly concentrated alkaline detergent specifically formulated for the automated cleaning of bedpans, urine bottles, commode pots, glassware, and other reusable patient care containers in bedpan washer-disinfectors.

The advanced formulation effectively dissolves and removes heavy organic contamination such as urine residues and human excreta, supporting hygienic outcomes and helping to maintain internal washer cleanliness.

The low-foam formulation is specifically adapted to automated washer-disinfecter systems, supporting stable process performance and preventing foam-related disruptions.

NOSOMATIC SK1 incorporates corrosion inhibitors to help protect patient care containers and equipment from corrosion and discoloration, supporting long-term durability and appearance.



Properties

- Drastically efficient due to the specific combination of alkaline and sequestering agents
- Optimized for automated bedpan washer-disinfectors
- Effective in soft and hard water
- Non-foaming formulation for stable automated operation
- Prevents corrosion and discoloration
- Appropriate for heat-sensitive utensils
- Maintains washer internal cleanliness

Composition

Sequestering agents, corrosion inhibitors, pH regulator

Compatibility

NOSOMATIC SK1 is compatible with most materials such as stainless steel, glass, plastics, ceramics, ebonite, etc.

Material compatibility with sensitive materials should always be checked before use.

Certifications

- CE mark according to the Medical Device Regulation MDR (EU) 2017/745
- Medical device class I

Packaging

- 5 litre canister (Ref. 20080)
- 10 litre canister (Ref. 20081)

Physical properties

- Appearance: Transparent solution
- Density: 1.2 g/cm³ at 20°C
- pH: 11.00 at 20°C
- pH (1% in deionised water): 10.70-11.00 at 20°C
- Viscosity: <50 mPas at 20°C
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Dosage

Set up the washer for a dilution of 0,1% (1ml/l) to 0,3% (3 ml/l). The dosing is achieved through the washer's interface. Follow the washer manufacturer's instructions. Always adjust the dosage and contact time depending on the degree of soiling and water hardness. For best results, the use of deionised water is preferred.

NOSOMATIC SK2 - Acidic descaler and rinse aid, should be used during the rinsing cycle to complete the reprocessing.

NOSOMATIC® SK2

Acidic descaler & rinse aid for bedpan washer-disinfectors

NOSOMATIC SK2 is an acidic descaling and rinsing agent developed for use in bedpan washer-disinfectors.

NOSOMATIC SK2 supports effective descaling and final rinsing of bedpans, urine bottles, commode pots, and other reusable patient care containers, promoting rapid drying and minimizing water spotting.

It accelerates the drying process and helps prevent the formation of water spots, supporting improved final appearance of reusable patient care containers.

In washer-disinfectors with built-in steam generators, NOSOMATIC SK2 provides effective protection against limescale formation in boilers, pipe systems, and spray nozzles, supporting long-term equipment reliability even in high water hardness environments.

Properties

- Accelerates drying and reduces water spotting
- Optimized for bedpan washer-disinfectors
- Protects boilers, pipes and spray nozzles from limescale
- Appropriate for heat-sensitive medical utensils
- Very economical low-dose use
- Reliable performance in hard water conditions
- Pleasant fresh odour

Composition

Anionic and non-ionic surfactants, organic acid, corrosion inhibitors, pH regulator, fragrance

Compatibility

NOSOMATIC SK2 is compatible with most materials such as stainless steel, glass, plastics, ceramics, ebonite, etc.

Material compatibility with sensitive materials should always be checked before use.

Certifications

- CE mark according to the Medical Device Regulation MDR (EU) 2017/745
- Medical device class I



Packaging

- 5 litre canister (Ref. 20083)
- 10 litre canister (Ref. 20084)

Physical properties

- Appearance: Transparent solution
- Density: 1.1 g/cm³ at 20°C
- pH: 2.50-3.00 at 20°C
- pH (1% in deionised water): 2.50-3.00 at 20°C
- Odour: Fresh scent
- Viscosity: <50 mPas at 20°C
- Storage: 5°C - 35°C
- Stability: 3 Years
- Biodegradability: According to OCDE 301D

Dosage

Set up the washer for a dilution of 0,05% (0,5 ml/l) to 0,15% (1,5 ml/l). The dosing is achieved through the washer's interface. Follow the washer manufacturer's instructions. Always adjust the dosage and contact time depending on the water hardness. For best results, the use of deionised water is preferred.

MEDALKAN HOSPITALS AND CLINICS PRODUCT CHARACTERISTICS

PRODUCT OVERVIEW	FIELD OF ACTIVITY				MATERIAL COMPATIBILITY								OTHER COMPATIBILITY				SPECTRUM OF ACTIVITY								PH			PACKAGING	RECOMMENDED DOSAGE RANGE (%)	MEDICAL DEVICE CLASS	
	CLEANING	DISINFECTION	NEUTRALISING	RINSING	ALUMINIUM	STAINLESS STEEL	CHROME	PEXIGLASS	CERAMICS	HARD PLASTICS	EBONITE	LEATHER	RUBBER	ULTRASONIC BATHS	WASHER DISINFECTORS	BEDPAN W-D	ENDOSCOPES	BACTERICIDAL	FUNGICIDAL *	VIRUCIDAL **	NON ENVELOPED VIRUS	MYCOBACTERICIDAL	TUBERCULOCIDAL	SPORICIDAL	ALKALINE	NEUTRAL	ACIDIC				
																															BACTERICIDAL
SURFACE CLEANING AND DISINFECTION																															
NOSOSEPT 100	X	X			X	X	X	X	X	X	X								X	X	X	X	X	X	X				SPRAY 1L CANISTER 5 L	READY TO USE	Ila
NOSOFAST TB	X	X			X	X	X	X	X	X	X	X							X	X	X	X	X	X	X				SPRAY 1L CANISTER 5 L	READY TO USE	Ila
NOSOFLOOR	X	X			X	X	X	X	X	X	X								X	X	X	X	X	X	X				5 L	0,25% TO 1%	Ila
INSTRUMENT CLEANING & DISINFECTION																															
NOSOPROTECT	X	X			X	X	X	X	X	X	X			X					X	X	X	X	X	X	X				5 LITRE	0,25% TO 1%	Ilib
NOSOPROTECT 100	X	X			X	X	X	X	X	X	X								X	X	X	X	X	X	X				SPRAY 1L CANISTER 5 L	READY TO USE	Ilib
ENDOSCOPE & INSTRUMENT CLEANING & HIGH LEVEL DISINFECTION																															
NOSOZYM	X				X	X	X	X	X	X	X	X	X	X	X			X								X			5 LITRE	up to 0,5%	I
NOSOZYM 6 PLUS	X				X	X	X	X	X	X	X	X	X	X	X			X								X			5 LITRE	up to 0,5%	I
NOSOCID PAA		X			X	X	X	X	X	X	X	X	X	X	X			X								X			5 LITRE	READY TO USE	Ilib
INSTRUMENT AUTOMATED REPROCESSING																															
NOSOCLEAN	X				X	X	X	X	X	X	X	X	X	X	X										X				5 LITRE	0,4% TO 2%	I
CITRALKAN	X		X		X	X	X	X	X	X	X	X	X	X	X											X			5 LITRE	0,1% TO 0,2%	I
NEUTRALKAN		X			X	X	X	X	X	X	X	X	X	X	X											X			5 LITRE	0,05% TO 0,4%	I
NOSOCLEAR				X	X	X	X	X	X	X	X	X	X	X	X											X			5 LITRE	0,01% TO 0,03%	I
BEDPAN REPROCESSING DETERGENTS																															
NOSOMATIC SK1	X				X	X	X	X	X	X	X	X	X	X	X			X								X			5 LITRE	0,1% TO 0,3%	I
NOSOMATIC SK2		X			X	X	X	X	X	X	X	X	X	X	X			X								X			5 LITRE	0,05% TO 0,15%	I



Your distributor



MEDALKAN
TECHNIKI EMPORIKI STAVRIDIS LTD

102, Michalakopoulou street, 115-28 Athens
Tel.: (+30) 210 74 84 847, Fax: (+30) 210 77 72 009
Site: www.medalkan.com
E-mail: contact@medalkan.gr



For further information,
please visit www.medalkan.com