

NEPHROLOGY

Infection Prevention in Dialysis



**SUCCESSFUL HYGIENE
MANAGEMENT
WITH DR. SCHUMACHER**

Focus on Hygiene:
Efficient. Effective. Comprehensive.

IMPRINT

Publisher

Dr. Schumacher GmbH
Am Roggenfeld 3
34323 Malsfeld
Germany
P +49 5664 9496-0
F +49 5664 8444
info@schumacher-online.com
www.schumacher-online.com

LISTINGS

DAAB

IHO

ÖGHMP

RKI A

RKI AB

RKI/DVV

VAH

DAAB – Product tested and recommended by the German Allergy and Asthma Association (www.daab.de). **IHO** – Industry Association for Hygiene and Surface Protection for Industrial and Institutional Use e.V. (www.desinfektionsmittelliste.de). **ÖGHMP** – Products listed in the disinfectant list of the Austrian Society for Hygiene, Microbiology and Preventive Medicine (www.oeghmp.at). **RKI A** – Products listed in the disinfectant list of the Robert Koch Institute according to § 18 IfSG, effective range A. **RKI AB** – Products listed in the disinfectant list of the Robert Koch Institute according to § 18 IfSG, effective range AB. **RKI/DVV** – Virucidal product according to the guidelines of the German Association for Combating Viral Diseases e.V. (DVV) and the Robert Koch Institute (RKI). **VAH** – Products listed in the disinfectant list of the Association for Applied Hygiene e.V. (www.vah-online.de).

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Introduction

The role of hygiene **in safe dialysis**



People with acute and chronic kidney disease are at higher risk of infection. In addition to increased technical, material and personnel requirements, special attention to hygiene measures is critical for patient safety.

Risk factors such as wounds, large-bore vascular catheters and bloodstream infections are of particular importance. High compliance with basic hygiene standards, especially the core elements of hand and surface hygiene, is crucial in preventing the spread of multi-resistant pathogens. Disinfection and hygiene measures form the foundation of successful infection prevention.

Dr. Schumacher's product portfolio offers comprehensive solutions to support the diverse challenges of successful hygiene management in dialysis wards and clinics. In addition to being user-friendly and cost-effective, our products offer a high level of quality and security with broad spectrums of efficacy.

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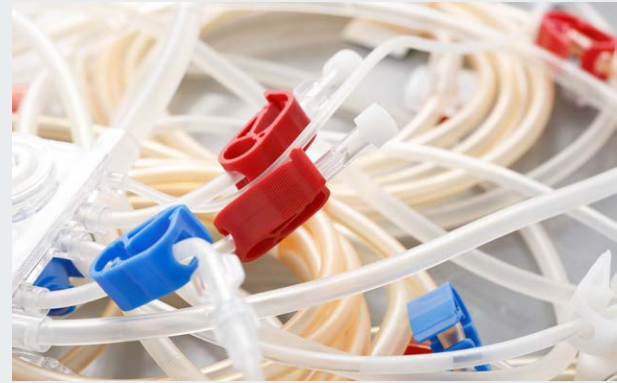
THERMO CLEAR

Clear-rinsing agent
for thermal bedpan cleaning machines

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Measures in Infection Prevention

Patient safety in dialysis: infection prevention



Know the risks

In addition to chronic renal failure, dialysis patients tend to be older and often have comorbidities like diabetes, mellitus or obesity. In addition to patient-specific factors (e.g. immunodeficiency), infections may also be caused by external influences. The risks of pathogen transmission in dialysis arise from a combination of frequent patient turnover and contamination of the dialysis access routes or dialysis systems. Infections that occur in connection with dialysis are the second most common cause of death after cardiovascular diseases.

Name the risks

Viral hepatitis isn't the only risk to dialysis patients. Colonization by multi-resistant bacteria (e.g. MRSA, VRE, MRGN), spore-forming *C. difficile* or other pathogens is an ever increasing threat. Though many of these pathogens are harmless on the skin, they can cause extreme illness or death when in the bloodstream. The use of central venous catheters plays a special role here, increasing the risk of bloodstream infection and highlighting the diversity of the challenges that dialysis centers face.

Transmission routes of infections



Vascular access

Vascular access has the greatest potential for complications in terms of infections. The risk of bloodstream infections is more than 25 times higher for dialysis patients compared to the general population thanks in large part to large-bore vascular access (e.g. catheters). Central venous catheters as dialysis access points pose greater risks than an arteriovenous dialysis shunts.



Contaminated surfaces

Contaminated surfaces help spread blood-borne viral diseases like hepatitis B and C. Various equipment and sanitary facilities that are cross-contaminated with bacteria and other micro-organisms represent further weak points. Attentive, regular disinfection of near patient surfaces is a critical part of comprehensive infection prevention and compliance with basic hygiene requirements.



Focus on hand hygiene

In professional healthcare, contaminated hands pose one of the highest risks of transmitting pathogens, especially multi-resistant bacteria. Transmission occurs via hand contact with surrounding surfaces and direct contact with the patients. Consistent adherence to hand hygiene is therefore a critical measure for infection prevention.

Motivating the Team

Easily integrate compliant hand hygiene



Identify barriers

Successful patient protection in dialysis requires a high level of commitment to hand hygiene. Medical staff are a major factor in the transmission of infections due to regular contact with potentially infectious material, blood and other contaminants. The points of contact for hygienic hand disinfection, especially the World Health Organization's "5 Moments for Hand Hygiene", play a key role.

Increase compliance

Dialysis work is characterized by regularly recurring, standardized workflows. This standardization enables processes to be optimized accordingly. Streamlined, standardized processes reduce the number of times hygienic hand disinfection must be performed during a procedure. The result: simultaneously increasing the willingness of medical staff to comply with hand hygiene and noticeably reducing the transmission rate of nosocomial infections.

✓ Further measures

- Consistent implementation of basic hygiene with a focus on hand and surface hygiene
- Improved availability and accessibility of disinfectant dispensers
- Leading by example: management modeling compliance with hygiene measures
- Regular trainings and open dialogue with staff to improve compliance
- Reduction of hand contamination through touchless dispensers and accessories (e.g. pedal bins)



Preparation

Organize all required procedure materials on a tray to avoid process interruptions. Interruptions pose a high risk of recontamination, especially during access connection and disconnection.



Dispensers

Constant visibility and accessibility of disinfectant dispensers should be guaranteed at every dialysis station.



Personal-use bottles

Use of personal-use hand disinfectant bottles serve as a "back-up" when preparing for treatment.

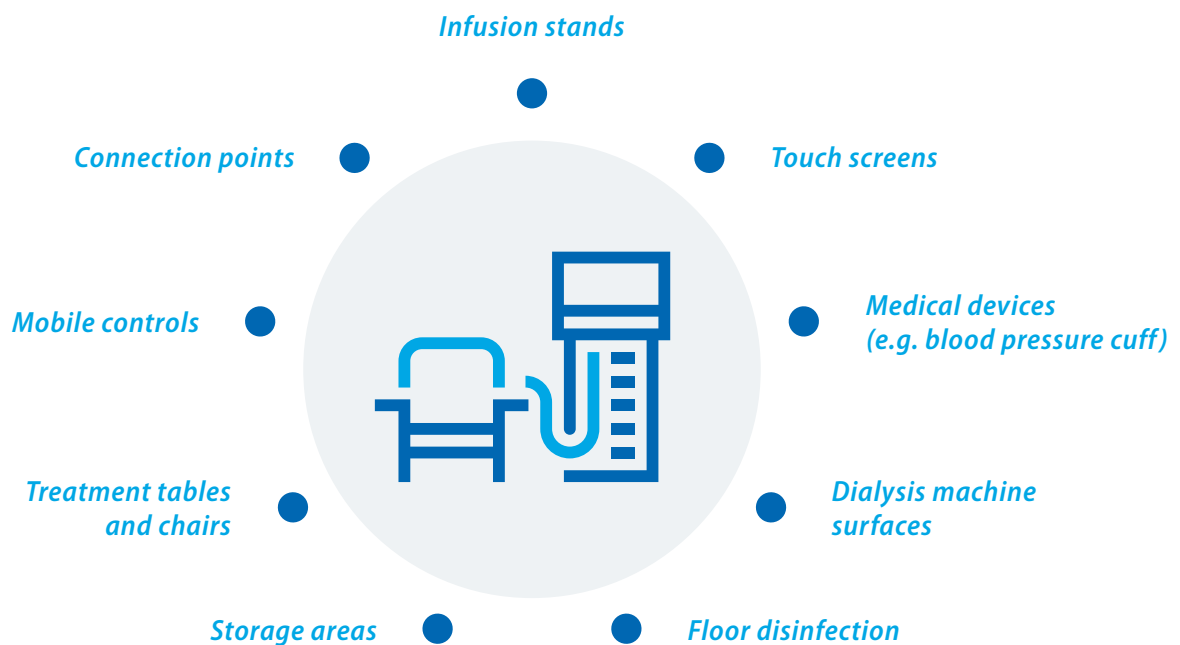


Standard Operating Procedures (SOP)

Define situational requirements for hand disinfection during hemodialysis. Standardized work processes reduce the amount of necessary disinfection measures.

Comprehensive Disinfection

Seamless protection: near patient area



Protect patients with proper surface disinfection

Surfaces such as floors, patient beds, chairs or equipment in the near patient dialysis environment are regularly exposed to possible contaminants (i.e. blood, secretions or other bodily fluids). Some germs can survive days, weeks or even months on surfaces and can be easily transmitted to patients when disinfection measures aren't adequately followed. In addition to the near patient environment, sanitary facilities and other areas away from the patient are also affected by these risks.

Contact infections can be passed by transference of pathogens from the hands of medical staff to surfaces and then from the surfaces to patients. In order to prevent cross-contamination and thus infections, frequent cleaning and disinfection of surfaces is necessary. Regular surface disinfection is essential to successful infection prevention.

Focus on Hands

Hand disinfection in dialysis

TIP FOR HAND HYGIENE:
INCLUDE THE PATIENTS!



Break the chain of infection

The majority of infections are transmitted through skin contact during assisted care and medical treatments. The extra vulnerability associated with dialysis procedures requires increased compliance with hand hygiene. Careful hand disinfection is the most important single measure to effectively break the chain of infection.

Focus on aseptic activities

The increased risk of infection during aseptic activities requires special care and urgent adherence to basic hand hygiene measures. The five moments of hand hygiene defined by the World Health Organization (WHO) serve as a guide here. The guideline defines the most likely situations in which transmission of pathogens and infections may occur. Observing these recommendations can successfully reduce the nosocomial transmission rate.

5 Moments of Hand Hygiene

✓ Before

1. Patient contact

- Before measuring blood pressure
- Before examining the AV fistula

2. Aseptic activities

- Immediately before puncturing the AV fistula
- Immediately before connecting the central venous catheter
- Immediately before opening sterilely packaged syringes

✓ After

3. Contact with infectious material

- After performing a blood gas analysis
- After connecting the venous access to the dialysis machine

4. Patient contact

- After measuring blood pressure

5. Contact with the near patient area

- After touching the hemodialysis machine
- After touching patient controlled monitors

Focus on Hands

Healthy skin minimize risks



Effective skin care

The high hand hygiene standards required in dialysis often result in extra stress to health care workers' skin. Excessive washing can lead to skin irritation and damage, causing issues with the health and performance of staff and risks to the safety of patients.

Increased work in a moist environment (e.g. frequent wearing of liquid-tight gloves or regular cleaning of hands) poses a risk to the skin health of dialysis staff. Skin irritation often leads to a decrease in compliance with hand disinfection procedures, endangering patients. In order to maintain the overall health of the skin and its protective functions, regular and comprehensive skin care is essential for everyday work.

1. Hand disinfection

Gentle and skin-friendly

The special hygiene requirements during dialysis make reliable and gentle hand disinfection indispensable. It minimizes the risk of infection and prevents the transmission of bacteria and pathogens.

- Limit hand washing to a minimum
- Replace hand washing with hand disinfection wherever possible
- Select a skin-friendly disinfectant

2. Skin care and protection

For healthy skin

In addition to reliable skin disinfection, comprehensive care and protection are essential for healthy, intact skin. Care for stressed and irritated skin by applying a barrier cream before starting your day and regularly applying care cream. Intact, healthy skin protects against infections and increases the compliance of nursing staff.

- Skin-friendly, nourishing formulas
- Availability of cotton gloves
- Reduction in wearing times by optimizing work processes

PRESERVE

DAAB

HACCP

VAH

IHO

ASEPTOMAN® MED

Alcoholic hand disinfectant

- Limited spectrum virucidal within 30 seconds
- Particularly suitable for frequent use thanks to its low alcohol content
- Effective against Noro-, Rota- and Adenoviruses within the hygienic hand disinfection
- Broad spectrum of efficacy for routine and outbreak use
- Free from perfume, dyes and QACs

ASEPTOMAN MED is well-suited for daily routine thanks to its low alcohol content and broad spectrum of efficacy. ASEPTOMAN MED is effective against noroviruses and adenoviruses in hygienic hand disinfection and fulfills the requirements for use in the case of norovirus, rota virus and adenovirus outbreaks. It is perfume-free and free of cumulative long-term active ingredients that can accumulate on the skin and cause irritation. In addition, ASEPTOMAN MED contains high-quality moisturizing and nourishing ingredients that prevent the skin from drying out.

Spectrum of efficacy and contact time

	PREVENT	PRESERVE	PROTECT
Application recommendation for hygienic hand disinfection	30 s	30 s	

Composition – 100 g solution contain

65 g Ethanol

Single Unit	Unit	Content	REF
pocket-size-bottle	20	150 ml	00-457OP-0015E
dispenser bottle	20	500 ml	00-457OP-005E
dispenser bottle	12	1 L	00-457OP-010E

VAH – VAH-listed for hygienic hand disinfection in 30-seconds.. **Prevent** – Bactericidal, yeasticidal, all enveloped viruses **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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

**PROTECT****PREVENT**

VAH

IHO

HACCP

ASEPTOMAN® FORTE

Alcoholic hand disinfectant

- Virucidal in 30 seconds
- Surgical hand disinfection in 1.5 minutes
- Patented combination of alcohol and agents for optimal skin care and protection
- Perfume-free, dye-free, QAC-free

ASEPTOMAN FORTE is a virucidal, ethanol-based hand disinfectant. ASEPTOMAN FORTE achieves a comprehensive spectrum of efficacy with excellent skin compatibility. Limited spectrum of virucidal efficacy and virucidal (according to EN 14476) within 30 seconds, has been proven to increase skin hydration and softens and smoothes the skin thanks to a proven skin care system.

Spectrum of efficacy and contact time

	PREVENT	PRESERVE	PROTECT
Application recommendation for hygienic hand disinfection	30 s	30 s	30 s
Application recommendation for surgical hand disinfection	1,5 min	1,5 min	1,5 min

Composition – 100 g solution contain

85 g Ethanol

Single Unit	Unit	Content	REF
pocket-size-bottle	20	150 ml	00-485OP-0015E
dispenser bottle	20	500 ml	00-485OP-005E
dispenser bottle	12	1 L	00-485OP-010E

¹ Compared to other virucidal hand disinfectants

Prevent – Bactericidal, yeasticidal, all enveloped viruses. **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal. **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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



For spraying or swabbing

ASEPTODERM®

Alcoholic skin disinfectant

- Bactericidal, yeasticidal, tuberculocidal
- Active against enveloped viruses¹
- Exceptionally gentle to the skin
- Perfume-free

ASEPTODERM is an alcoholic skin disinfectant for spraying or swabbing of skin. ASEPTODERM is free from persistent long-term acting ingredients that might have an irritating effect on the skin. Thus it is exceptionally kind to the skin.

Spectrum of Efficacy and Contact Times

Skin Disinfection

active against all enveloped viruses	RKI / DVV ¹	15 s
skin disinfection	EN 12791	1.5 min

Additional EN Test Results

tuberculocidal (M. terrae)	EN 14348	30 s
bactericidal	EN 13727	15 s
yeasticidal (Candida albicans)	EN 13624	15 s

Composition – 100 g solution contain

63,14 g 2-Propanol

Perfume

Single Unit	Unit	Content	REF
spray bottle	20	250 ml	00-501OP-0025-30E
dispenser bottle	10	1 L	00-501OP-010-10E

¹ Incl. HBV/HIV/HCV

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



HACCP

Sensitive skin

DESCOLIND PURE WASH

Perfume-free cleansing lotion

- For use before surgical and hygienic hand disinfection
- Suitable for full body patient washing and occasional hair washing
- With allantoin, rehydrating agents and glycerin to prevent the skin from drying out
- Mild, pH-neutral cleanser with a pleasant skin feeling
- Perfume- and dye-free – suitable for use in the food sector (HACCP conform)

DESCOLIND PURE WASH is a pH skin neutral washing lotion for the regular cleansing of sensitive hands and skin. The rehydrating agents and glycerin prevent drying of the skin from frequent hand washing. The creamy, delicate DESCOLIND PURE WASH cleans thoroughly and is economical to use. In addition, DESCOLIND PURE WASH is free of perfumes as well as dyes and is therefore suitable for use on sensitive skin.

Single Unit	Unit	Content	REF
dispenser bottle	20	500 ml	00-631OP-005-01
dispenser bottle	12	1 L	00-631OP-010-01
canister	3	5 L	00-631OP-050-01



DAAB

HACCP

Allergy-prone skin

DESCOLIND EXPERT PROTECT CREAM

2 in 1 skin protection and care cream

- Perfume and dye-free oil-in-water skincare and protection cream for allergy-prone skin
- Unique dual action formulation protects the skin against water-soluble substances while nourishing and moisturizing at the same time
- Protective effect confirmed by test methods (in accordance with TRGS 401/ABD)

DESCOLIND EXPERT PROTECT CREAM with 2 in 1 effect was specially developed to protect and care for sensitive and allergy-prone hands while you work. The oil-in-water (O/W) formulation is extremely easy to apply, absorbs quickly into the skin and minimizes work interruptions. DESCOLIND EXPERT PROTECT CREAM contains nourishing lipids and conditioning ingredients like witch hazel, which leave your skin feeling smooth and supple. It is suitable for daily use before activities that are hard on the hands and provides protection in wet environments, preventing cracked and chapped skin. The protective effect of DESCOLIND EXPERT PROTECT CREAM against water-soluble substances (surfactants and alkalines) has been verified using recognized testing methods. DESCOLIND EXPERT PROTECT CREAM is also perfume-free, meeting requirements for use in the food industry (HACCP). It is also suitable for use in wall dispensers.

Single Unit	Unit	Content	REF
tube	12	100 ml	00-623-001-01
dispenser bottle	20	500 ml	00-623-005-01



Comprehensive Disinfection

Individualized disinfection process

Selecting the right product

Selecting the right product is the basis for efficient and reliable disinfection. Dr. Schumacher offers disinfectant solutions for all your needs – concentrates, read-to-use liquids, disinfection wipes and dry wipe dispenser systems – and each with their own advantages. A variety of factors come into play when choosing the correct disinfectant for your needs: what is the level of efficacy required?

What type of material is being disinfected? How quickly do I need to reuse the surface? What is the most efficient and appropriate application (e.g. spraying vs. wiping)? Personal preference factors, such as cost-effectiveness, user comfort, scents and wetting properties, also play an important role.



Concentrates

Economical

Disinfectant concentrates offer optimal flexibility in surface disinfection. An economical solution ideal for larger surfaces, concentrates can be individually dosed based on situational requirements.

- Flexible exposure times depending on dosage
- For large areas such as floors and walls
- Compatible with dry wipe dispenser systems



Ready-to-use liquids

Time saving

These pre-dosed liquid disinfectants simplify processes for disinfecting all types of small and medium-sized surfaces. Suitable for spraying or wiping, these ready-to-use disinfectants offer a quick, time saving application.

- Fast application
- For small and medium-sized areas
- No preparation time



Ready-to-use disinfection wipes

Safe and easy

Pre-soaked disinfection wipes are ready-to-use and ensure ease and availability at the point of care. Available in different sizes and with different spectrums of efficacy, each package of disinfectant wipes from Dr. Schumacher offers an optimal combination of non-woven fleece and soaking solution to ensure safe disinfection.

- Removes risk of improper dosing and reduces the spread of germs
- Reliable and ready for immediate use
- For small to medium-sized areas



Dry wipe dispenser systems

Flexible

Dry wipe dispenser systems are hygienic and easy to store. They can be flexibly combined with the Dr. Schumacher disinfectant of your choice and are ready to use quickly after filling.

- Economical use
- Long standing time
- Great for large areas



DESCOSEPT SENSITIVE PRODUCT FAMILY

Alcohol-based, rapid disinfectant and ready-to-use wipes

- Efficient disinfection and cleaning performance
- Good material and skin compatibility with low ethanol content
- Wide range of applications on surfaces and medical devices

Fast and effective disinfection is essential in patient care and DESCOSEPT SENSITIVE products offer the right solution for a wide range of surfaces and medical devices. DESCOSEPT SENSITIVE is an ethanol-based, ready-to-use, rapid disinfectant for gentle disinfection and cleaning. It is suitable for areas where a comprehensive spectrum of efficacy is required. In addition to short contact times, DESCOSEPT SENSITIVE products offer good material compatibility¹.

Spectrum of efficacy and contact times – DESCOSEPT SENSITIVE

	PREVENT	PRESERVE	PROTECT
Application recommendation for surface disinfection with and without mechanical action	2 min ² 5 min ³	3 min ² 5 min ³	
Application recommendation for tuberculocidal surface disinfection with and without mechanical action		1 min	

Spectrum of efficacy and contact times – DESCOSEPT SENSITIVE WIPES/XL

	PREVENT	PRESERVE	PROTECT
Application recommendation for surface disinfection	2 min	3 min	
Application recommendation for tuberculocidal surface disinfection		3 min	

Composition – 100 g solution contain

45 g Ethanol

DESCOSEPT SENSITIVE WIPES offer a universal and time saving application for the disinfection and cleaning of medium-sized surfaces. DESCOSEPT SENSITIVE WIPES are available with two non-woven wipes: our tried and tested DESOTEX Wipes and the sustainable DESOTEX Bio fleece. DESOTEX Bio fleece is made from 100 % renewable raw materials and is biodegradable⁴. It offers improved absorbency and cleans more efficiently with a range of over 2 m² per cloth.

DESCOSEPT SENSITIVE WIPES XL are well suited for large areas. The wipes are easily individually removed from the standing pouch with a resealable lid and handle for easy transport. DESCOSEPT SENSITIVE WIPES and DESCOSEPT SENSITIVE WIPES XL are based on an optimal combination of wipe material and disinfectant solution. This allows for effective disinfection within a very short time, while also treating sensitive surfaces and materials gently.

Single Unit	Unit	Content	Size	REF
spray bottle	6	750 ml		00-323DS-0075E
bottle	10	1 L		00-323DS-010E
canister	3	5 L		00-323DS-050E
flowpack	9	60 wipes	20 x 22 cm	00-323DS-To60E
flowpack (DESOTEX Bio)	6	100 wipes	20 x 20 cm	00-323DS-T100E
wipes dispenser	4	120 wipes	17,5 x 36 cm	00-323DS-OSEB120E

1 – Tested for metals, elastomers, thermoplastics and other materials commonly found in medical surfaces and devices.

2 – wipe disinfection

3 – spray disinfection

4 – The biodegradability of our wipe material has been certified in accordance with EN 13432.

Prevent – Bactericidal, yeasticidal, all enveloped viruses **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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

COMING IN 2026!

PROTECT



ULTRASOL OXY® PRODUCT FAMILY

Oxidative rapid disinfectant and
oxidative-based sporicidal wipes

- Broad spectrum of efficacy including virucidal and sporicidal (see table)
- High material compatibility due to oxidative base
- For disinfection in hygiene-sensitive areas
- No toxic or polluting residues

ULTRASOL OXY is a ready-to-use rapid disinfectant with a broad spectrum of efficacy (see table) against bacteria, viruses and spores. The oxidative rapid disinfectant is used to clean and disinfect medical devices as well as surfaces in areas where increased efficacy is required. Due to its oxidative base, ULTRASOL OXY has a high material compatibility and can be used on almost all materials.

ULTRASOL OXY WIPES and ULTRASOL OXY WIPES XL offer all the benefits of ULTRASOL OXY in a convenient and practical pre-soaked wipe application. ULTRASOL WIPES XL are particularly suitable for disinfecting large areas thanks to their larger wipes. The pre-soaked wipes enable comfortable and time saving use, even when used under difficult conditions.

Spectrum of efficacy and contact times – ULTRASOL OXY

	PREVENT	PRESERVE	PROTECT
Application recommendation for surface disinfection with and without mechanical action	1 min	1 min	5 min
Application recommendation for tuberculocidal surface disinfection with and without mechanical action			5 min
Application recommendation against <i>C. difficile</i>			5 min
Application recommendation for sporicidal surface disinfection with and without mechanical action			15 min

Spectrum of efficacy and contact times – ULTRASOL OXY WIPES/XL

	PREVENT	PRESERVE	PROTECT
Application recommendation for surface disinfection	5 min	5 min	5 min
Application recommendation for tuberculocidal surface disinfection			5 min
Application recommendation against <i>C. difficile</i>			5 min
Application recommendation for sporicidal surface disinfection			15 min

Main active ingredients – 100 g solution contain

7 g Hydrogen Peroxide

0,1 g Peracetic Acid

Single Unit	Unit	Content	Size	REF
bottle	6	2L		00-270-020
flowpack	6	108 wipes	20 x 20 cm	00-270-T108E
dispenser system	4	120 Wipes	17,5 x 36 cm	00-270-OSEB120E

Prevent – Bactericidal, yeasticidal, all enveloped viruses **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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



PREVENT

PREVENT

HACCP

VAH

IHO

ÖGHMP



CLEANISEPT® WIPES MAXI

Alcohol-free wipes
for rapid disinfection

- Universal, comfortable and time saving application
- Basic, rapid efficacy as well as wide range of applications in routine areas
- For disinfection of ultrasound probes for abdominal examinations

CLEANISEPT WIPES MAXI'S larger wipes are ideal for disinfecting and cleaning medium-sized surfaces in routine areas. The individual wipes are easily extracted from the re-sealable and user-friendly flowpack. CLEANISEPT WIPES MAXI are effective against bacteria, yeasts (including *Candida auris*) and enveloped viruses.

Spectrum of efficacy and contact time

	PREVENT	PRESERVE	PROTECT
Application recommendation for surface disinfection	1 min		

Composition – 100 g solution contain

0,5 g alkyl (C12-16) dimethylbenzylammonium chloride
0,25 g didecyldimethylammonium chloride

Single Unit	Unit	Content	Size	REF
flowpack	6	100 wipes	20 x 22 cm	00-208-T100E

Prevent – Bactericidal, yeasticidal, all enveloped viruses **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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



VAH

IHO

ÖGHMP

OPTISAL® N

Liquid concentrate for surface
disinfection and cleaning

- Good material compatibility
- Low cleaning effort due to combination of very good cleaning and disinfection performance
- No odor nuisance due to pleasant fresh scent

OPTISAL N is a user-friendly concentrate for disinfection and cleaning of non-invasive medical devices, medical inventory and all kinds of surfaces. The product has very good cleaning power. Moreover, it has a fresh and pleasant scent, as it contains neither aldehydes nor phenols. Sticky residues or adhesive effects on surfaces are avoided thanks to its QAC (quaternary ammonium compounds)-free formulation. The use of OPTISAL N is especially recommended for all areas where, in addition to the compliance with high hygienic demands, the avoidance of unpleasant odors is required. Well suited for use on PVC/linoleum-floors.

Spectrum of efficacy and contact time

	PREVENT	PRESERVE	PROTECT
Application recommendation for surface disinfection	1 % – 15 min 0,5 % – 60 min		
Application recommendation for tuberculocidal surface disinfection	0,5 % – 60 min		

Composition – 100 g solution contain

7,2 g N-(3-Aminopropyl)-N-dodecylpropan-1,3-diamine

Single Unit	Unit	Content	REF
dosage bottle	10	1 L	00-214-010E
canister	3	5 L	00-214-050E

Prevent – Bactericidal, yeasticidal, all enveloped viruses **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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



**WITH ULTRASOL OXY SACHETS
FOR REPROCESSING**

ECO WIPES

Dispenser bucket

- Reusable dispenser bucket for use with non-woven DESCO WIPES and suitable surface disinfectant
- Each refill comes with an ULTRASOL OXY Sachet for reprocessing

ECO WIPES consists of a reusable non-woven wipe dispenser system paired with compatible refill rolls of non-woven wipes. It offers high flexibility, as it can be used with both ready-to-use rapid disinfectants and application solutions prepared from disinfectant concentrates. The wipes are made from premium DESOTEX non-woven material, ensuring reliable performance. Each refill pack includes an ULTRASOL OXY SACHET, allowing for manual hygienic reprocessing of the dispenser before refilling.

Single Unit	Unit	Content	Size	REF
dispenser bucket	1	empty	-	00-915-SE001
dispenser bucket	6	empty	-	00-915-SE002
wall holder	1	-	-	00-902-EIM
ECO WIPES				
pack	3	100 wipes	30 x 32 cm	00-915-REW10003-01
pack	6	100 wipes	30 x 32 cm	00-915-REW10006-01
pack	3	50 wipes	30 x 32 cm	00-915-REW5003-01

Hygiene Levels

Safety made simple

Hygiene levels at a glance

Pathogens can be divided into three different categories based on how difficult it is to kill or deactivate them. Different situations and different areas of hospitals have varying efficacy requirements. Dr. Schumacher has made identifying the efficacy level of our disinfectants simple through color coding – the Dr. Schumacher Hygiene Levels: Prevent, Preserve, Protect.

Spectrum of Efficacy

- Bactericidal, yeasticidal
- All enveloped viruses

Relevant Viruses

- HBV
- HCV
- HIV
- Corona and influenza viruses

PREVENT

Spectrum of Efficacy

- Bactericidal, yeasticidal
- All enveloped viruses
- Noro-, Rota- und Adenoviruses
- Tuberculocidal

Relevant Viruses

- HBV, HCV, HIV, Corona and Influenza viruses
- Noro-, Rota- und Adenoviruses

PRESERVE

Spectrum of Efficacy

- Bactericidal, yeasticidal, fully virucidal
- Mycobactericidal, sporicidal

Relevant Viruses

- HBV, HCV, HIV, Corona- and Influenza viruses
- Noro-, Rota- und Adenoviruses
- ECHO-, Coxsackie-, Rhino-, Picoma- and Papillomaviruses
- Papillom viruses

PROTECT



Focus on Medical Devices

Reprocessing of medical devices: proper classification



Expert risk assessment

Instrument reprocessing is subject to strict regulations and requirements. The classification of each medical device dictates its reprocessing requirements. Due to the increased vulnerability of dialysis patients, increased

attention to and professional training in standard operating procedures is essential for patient safety. The development of processes and collective attention to hygiene form the basis of successful infection prevention.

MEDICAL DEVICES

Non-critical medical devices	Contact with intact skin
Example medical device	Kidney dishes, tweezers, scissors, clamps, forceps etc.
Process	Cleaning and disinfection with limited virucidal products, ready-to-use disinfectant wipes are recommended
Recommended product	DESCOCEPT SENSITIVE WIPES
Semi-critical medical devices A & B	Contact with mucous membranes or pathologically altered skin
Example medical device	Speculum, TVUS
Process	Cleaning and disinfection with virucidal products in immersion bath, optional sterilization
Recommended product for final disinfection	PERFEKTAN ACTIVE
Critical medical devices A, B & C	Contact with mucous membranes, secretions or pathologically altered skin
Example medical device	Retractors, MIC trocar
Process	Automated cleaning and disinfection with virucidal products, optional sterilization
Recommended product for machine cleaning	THERMOSHIELD XTREME

BED PAN REPROCESSING

Area	Without risk of infection (I)
Procedure	Disinfection is carried out thermally. The minimum value for thermal disinfection of bedpans is an A ₀ value of 60 (DIN EN ISO 15883-3)
Recommended product	THERMO CLEAR
Area	With possible risk of infection (II)
Procedure	Thermal processes with an A ₀ value of at least 600
Recommended product	THERMO CLEAR
Area	With high risk of infection (III)
Procedure	Thermal processes with an A ₀ value of at least 600
Recommended product	THERMO CLEAR



PLURAZYME® EXTRA

Multi-enzymatic cleaner for reprocessing surgical instruments and endoscopes

- **Reliable, powerful cleaning as the basis for reprocessing**
- **PLURAZYME EXTRA reduces maintenance costs thanks to excellent preservation of high-quality medical devices**
- **High compatibility with other process chemicals and flexible application (e.g. ultrasonic bath) ensure easy integration into work processes**
- **Low dosage, biodegradable surfactants and enzymes as natural cleaning boosters complement each other to create an environmentally friendly product concept**

PLURAZYME EXTRA is a cleaning concentrate well-suited for the manual reprocessing of a variety of medical devices. Its extensive material compatibility makes it suitable for cleaning surgical instruments as well as both rigid and flexible endoscopes. The pleasant scent and high cleaning power ensure comfortable use, whether in an immersion or ultrasound bath. The active formula of 3 enzymes and non-ionic surfactants penetrates and dissolves a wide range of organic contaminants – from coagulated blood to mucus to fat – without fixing. Compatibility with other cleaners and disinfectants ensures that PLURAZYME EXTRA can be easily and flexibly integrated into your processes.

Application and dosage recommendation for cleaning

Depending on the degree of pollution	0,4 – 2 % (4 ml/L – 20 ml/L) max. 40 °C mind. 5 min
Recommendation for ultrasonic baths	0,25 % (2,5 ml/L) max. 40 °C mind. 5 min

Composition – 100 g solution contain

5 – 15 % non-ionic surfactants

Enzymes

Preservative didecylmethyl poly(oxyethyl)ammonium propionate

Contains perfumes: Limonene

Single Unit	Unit	Content	REF
dosage bottle	10	1 L	00-138-010-01
bottle	12	1 L	00-138-010E
canister	3	5 L	00-138-050-02E



VAH

IHO

ÖGHMP

PERFEKTAN® ACTIVE

Powder concentrate for instrument disinfection

- **Very good material compatibility¹**
- **Rapid disinfection due to oxidative formulation**
- **Completely soluble powdered concentrate**

PERFEKTAN ACTIVE is a highly effective¹ powder concentrate for manual disinfection of medical instruments and rigid as well as flexible endoscopes. The powder dissolves quickly and completely in water, for a reliable and safe application. The mildly alkaline, peracetic acid based solution offers a maximum spectrum of efficacy² with very good material compatibility², even with sensitive materials like silicone. PERFEKTAN ACTIVE's oxidative action system provides efficient disinfection through peracetic acid, which completely breaks down into water, acetic acid and oxygen.

Spectrum of efficacy and contact time

	PREVENT	PRESERVE	PROTECT
Application recommendation for final disinfection for semi-critical medical devices including rigid and flexible endoscopes			1 % - 60 min 2 % - 30 min
fungicidal			3 % - 30 min 2 % - 60 min

Composition

Active ingredients: Peracetic acid (in-situ) > 850 ppm (1 % solution), hydrogen peroxide

Single Unit	Unit	Content	REF
sachet	100	40 g	00-155-0004
bucket (incl. measuring spoon)	6	1 kg	00-155-010

¹ Tested for common metals, elastomers and thermoplastics in medical devices.

² bactericidal, levurocidal, tuberculocidal (M. terrae), sporicidal (C. difficile), virucidal, mycobactericidal (M. terrae, M. avium), fungicidal

Prevent – Bactericidal, yeasticidal, all enveloped viruses **Preserve** – Bactericidal, yeasticidal, all enveloped viruses, Noro-, Rota- and Adenoviruses, tuberculocidal **Protect** – Bactericidal, yeasticidal, fully virucidal, mycobactericidal, sporicidal.

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



THERMO CLEAR

Clear-rinsing agent for thermal bedpan cleaning machines

- Prevents calcification of bedpan washing machines
- Ensures spotless drying of the bedpans
- Low foaming

THERMO CLEAR is suitable for acidic thermal reprocessing of bedpans in thermal bedpan washers. It ensures spotless drying of the bedpan, prevents the bedpan reprocessing machine from calcification and is low-foaming. THERMO CLEAR is biodegradable according to EU detergent regulation because it is based on citric acid.

Application and dosage recommendation for cleaning

Dosing is dependant on the machine type and water hardness. Do not start addition below 30 °C.

1 – 3 ml/L
(see manufacturer's instructions)
(0,1 – 0,3 %)

Composition – 100 g solution contain

< 30 % organic acids

complexing agents

corrosion inhibitors

Single Unit	Unit	Content	REF
flat canister	3	5 L	00-127-050E
canister	3	5 L	00-127-050





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YOU WILL FIND AT

www.schumacher-online.com



Contact

Dr. Schumacher GmbH
Am Roggenfeld 3
34323 Malsfeld
Germany

P +49 5664 9496-0

F +49 5664 8444

internationalsales@schumacher-online.com

www.schumacher-online.com

