DISINFECTION Product Range

For highest requirements and infection prevention by

BODE Chemie GmbH

Infection prevention: More than just effective products

As one of the leading specialists for disinfection and hygiene worldwide, BODE Chemie GmbH puts strong focus on the protection of both the healthcare personnel and the patients. Therefore, we spare no effort to make the best possible products which we support by developing complementing practical, cutting-edge solutions based on scientific findings.

Infection prevention is a great challenge and it demands convincing solutions. The modern products must be effective, user-friendly and efficient to use, and the disinfection experts at BODE Chemie have been committed to meeting these demands for more than 80 years.

Our product Sterillium – the world's first marketable alcohol-based hand disinfectant – revolutionised hand hygiene more than 50 years ago with its excellent skin tolerability and extensive efficacy spectrum and it has been the market leader since then. Today, BODE produces more than 400 products that are marketed in about 50 countries around the world.

Service: Always there for you

BODE Chemie provides a comprehensive service portfolio to ensure that our customers are always informed about current hygiene standards, can further optimise their hygiene concepts and can better address the demand for continuous further training.

It is our pleasure to assist you. Our extensive online knowledge portal **www.bode-science-center.com** offers among others: training videos, a pathogen search from Acinetobacter to Zika virus and hygiene management tips for important pathogens.

Additionally, the regularly published magazine DISINFACTS provides professional and practical information on the latest hygiene and infection protection topics.

For more information on all our products and on our company BODE Chemie GmbH please go to:

www.bode-chemie.com

BODE SCIENCE CENTER contact point: Expert advice for disinfection and hygiene inquiries

Our experts look forward to answering your questions on hygiene and disinfection by phone or e-mail:

Tel.: +49(40)-54 006 111 Fax: +49(40)-54006 777 E-mail: contact@bode-science-center.com

The telephone hotline is available: Mon-Thurs: 8:00-16:30 (CET) Fri: 8:00-15:00 (CET)



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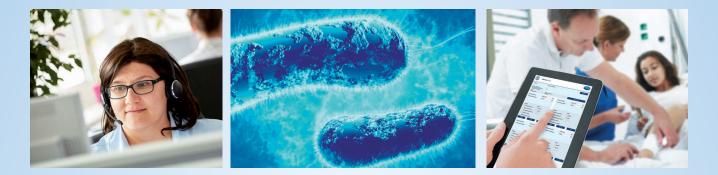
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BODE SCIENCE CENTER

Your centre of excellence for hygiene and infection control.



Since 2011, BODE SCIENCE CENTER – scientific centre of excellence – has dealt with issues related to hygiene and infection control. The focus of the BODE SCIENCE CENTER's activities is on developing evidence-based solutions to provide better infection prevention and protection for patients and healthcare workers, and on eliminating common compliance barriers.

BODE SCIENCE CENTER

- Research projects and cooperations with leading hygiene scientists and partners from clinical practice and academic research.
- New customized and digital solutions for a better hygiene and improved compliance.
- Online resources: A comprehensive web portal with a wide range of helpful content on hygiene topics and the periodically released DISINFACTS our digital customer magazine featuring in-depth articles on new recommendations, studies, products and much more.

www.bode-science-center.com

Expert advice for disinfection and hygiene inquiries Our experts answer your questions – on the phone or via e-mail: +49 (0)40 54006-111, contact@bode-science-center.de Mon-Thurs: 8:00 to 16:30 CET Fri: 8:00 to 15:00 CET

Research for infection protection. www.bode-science-center.com



Hands

m



In good hands

Hands are the number one risk in transmitting microorganisms. Therefore, BODE particularly focuses on hand hygiene – through intensive research and continuous, consistent product advancement.

In healthcare facilities and the industry, hands are the most important transmitters of microorganisms. In the meantime it is internationally agreed that only alcohol-based rub-in preparations provide the best protection against the transmission of pathogens by the hands.

Globally, BODE takes a leading role in hand disinfection, which is based upon a head-start in innovation and technology of 50 years. Our focus is on developing highly effective hand disinfectants without losing sight of skin tolerability and user convenience.

Well balanced hand hygiene programme

Healthcare practitioners as well as personnel in hygiene relevant areas in industry perform hand washing and hand disinfection frequently. The number of indications requiring a skin treatment can be as many as 60 per working day depending on the type of work being carried out.

To maintain a natural barrier, skin needs to be soft and hydrated. Well balanced use of the three elements of hand hygiene – skin care products, hand disinfectants and wash lotions will support the healthy condition.





* tested with the murine norovirus (MNV)

One measure is the use of skincare products, i.e., creams or lotions. It is proven that the use of a hand cream can reduce skin dryness and roughness. Skin care products should have no influence on the effectiveness of the hand disinfectant. Only compatible hand disinfectants and skin care products should be used.

The most critical aspect of skin care though is the prevention of activities that put a strain on the skin. Skin-stressing activities include frequent hand washing, washing with hot water or even scrubbing with a brush.

Hand disinfection in different medical areas ensures a rapid and reliable reduction of bacteria count and reliably destroys microorganisms. The

best option is to use an alcohol-based rub-in product. They have a fast and a broad spectrum of antimicrobial efficacy. This opinion is shared by the World Health Organization and many national institutes, who based their positions on the numerous studies detailing the benefits of alcohol-based hand disinfectants.

Additionally, well-formulated alcohol-based hand disinfectants contain skin care ingredients, which support the protective function of the skin. Thus, compliance with hand hygiene guidelines actually can enhance skin health.

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

Hand disinfection and atopics

Especially among caregivers, contact dermatitis occurs frequently. One risk factor is atopy, i.e. an inherited predisposition which causes a tendency to develop skin irritations or allergies. A prospective, controlled, randomised double-blind study investigated the dermal tolerance to five alcohol-based hand disinfectants* among atopics and non-atopics (1).



Atopics bear a higher risk of developing contact

Both atopics and non-atopics tolerated all five alcohol-based hand disinfectants well: no or only slight skin irritations occurred in comparison to the negative control (water). Conclusion: when using high-quality alcohol-based hand disinfectants on intact skin, also atopics can disinfect their hands without having skin irritations to fear. Irritant reactions only occur on pre-damaged skin. Also, the positive control with the surfactant SDS revealed stronger reactions.

- 1 Kampf G, Wigger-Alberti W, Wilhelm KP. Do atopics tolerate alcohol-based hand rubs? A prospective, controlled randomized double-blind clinical trial. Acta Derm Venereol 2006; 86:140-143
- * The products tested included Sterillium, Sterillium Gel and Sterillium Virugard



More than outstanding Hand disinfection with the Sterillium[®] range

Tried and tested for decades: Sterillium was the first marketable hand rub with good skin tolerability and has been used million times each day since 1965. The Sterillium products belong to the most frequently reviewed hand disinfectants and are pioneers in skin compatibility and efficacy.





"Sterillium[®] is an outstanding product."*

Rely on the best-known hand disinfectant! In a user survey among 26 physicians, nurses and hygienists in Germany, the Netherlands and Spain, Sterillium was the only hand disinfectant that was known by all respondents*. * Source: Market research by the HARTMANN GROUP, 2013, qualitative survey with 26 physicians, nurses and hygienists in Germany, the Netherlands, Spain.

Good skin compatibility High level of safety Good rub-in characteristics Broad spectrum of activity Easy handling Short exposure times Pleasant smell

Advance in skin tolerability

More than 30 clinical trials, field reports and expert opinions confirm the excellent skin compatibility of the Sterillium products – irrespective of whether it is a liquid or gel.

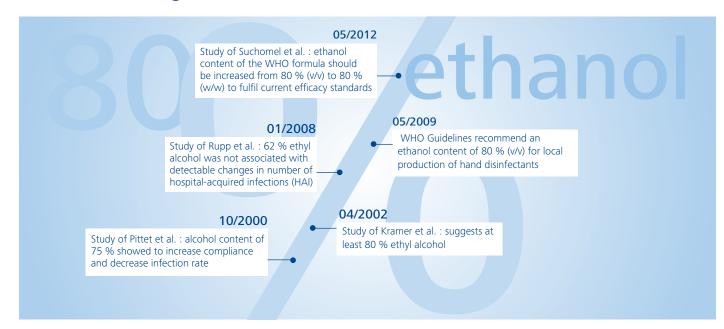
Monitored safety:

In 2012, Sterillium products have been applied more than 4,000,000,000 times. For less than 50 applications, suspected intolerance or allergy has been reported to us. This corresponds to a complaint rate of 0.000001 per cent.

Advance in efficacy

Sterillium hand disinfectants for hygienic hand disinfection possess rapid and broad efficacy, and meet, for example, the requirements of the European Standart EN 1500 with 3 ml in 30 s - not least thanks to their high alcohol content.

Trend towards higher alcohol content in hand disinfectants



References:

Pittet D et al. 2000 Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. Lancet; 356: 1307-1312.

Kramer A et al. 2002 Limited efficacy of alcohol-based hand gels. Lancet. 2002;359:1489-1490. Rupp ME et al. 2008 Prospective, controlled, cross-over trial of alcohol-based hand gel in critical care units. Infect Control Hosp Epidemiol. 2008; 29: 8-15.

WHO 2009 WHO Guidelines on Hand Hygiene in Health Care. First Global Patient Safety Challenge Clean Care is Safer Care (revised Aug 2009). Available at http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf (accessed on 01 Aug 2013).

Suchome! M et al. 2012 Testing of the World Health Organization recommended formulations in their application as hygienic hand rubs and proposals for increased efficacy. Am J Infect Control. 2012; 40 (4): 328-31.

Surgical hand disinfection with the Sterillium range

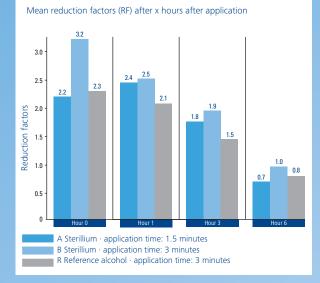


The aim of surgical hand disinfection is the reduction of resident micro-organisms and the elimination of transient microorganisms from the hands of the surgical team for the duration of an operation.

A procedure that does not significantly reduce the resident flora at the beginning of an operation or that does not keep the microbial release from the hands under baseline until the end of an operation is inadequate. Sterile surgical gloves alone are not a reliable barrier to pathogens. A meta-analysis on more than 20,000 used surgical gloves, for example, proved that 18.2 % of the gloves had perforations (1). Unnoticed by the surgeon this may quickly result in an infection risk for the patient. Only the combination of surgical hand disinfection and sterile gloves offers the best infection prophylaxis in operating theatres.

Surgical hand disinfection within 1.5 minutes

In 2005, a study for the first time investigated the efficacy of the alcohol-based hand disinfectant Sterillium for surgical hand disinfection with different application times (3, 2, 1.5 and 1 minute) in comparison with the 3-minute reference treatment in accordance with EN 12791 (1).



At any point in time, Sterillium with application times of 1.5 and 3 minutes was at least as effective as the reference treatment. Also, its bacterial colonisation rate approximately corresponded to the reference alcohol.

Even with an exposure time of 1.5 minutes only, Sterillium's immediate and sustained effect is still superior to the 3-minute reference procedure.

Further studies have confirmed the efficacy, even with additional application to forearms and elbows (2, 3). The Federal Institute for Drugs and Medical Devices (BfArM) authorised the reduced application time in 2005. Since 2007, the Association for Applied Hygiene (VAH) certifies surgical hand disinfection procedures with exposure times below the previously approved minimum application time of 3 minutes.

Another study (4) with Sterillium could proof that an exposure time of only 1.5 minutes does not influence the long-term effect of surgical hand disinfection. After 6 hours under the glove, Sterillium's colonisation rate was as low as the rate of the reference procedure with a 3-minute application time.

The exposure time of 1.5 minutes applies to the complete Sterillium range of products and – depending on the preparation – meanwhile has become standard. The advantages include less consumption and, according to a study, time savings of approx. 1,000 working hours per year in a hospital with at least 30,000 operations per year (5).

- Kampf G, Ostermeyer C, Heeg P. Surgical hand disinfection with a propanol-based hand rub:equivalence of shorter application times. J Hosp Infect. 2005 Apr; 59(4):304-10.
 Suchomel M., Gnant G., Weinlich M., Rotter M. Surgical hand disinfection using alcohol: the
- 2 Suchomel M., Gnant G., Weinlich M., Rotter M. Surgical hand disinfection using alcohol: the effects of alcohol type, mode and duration of application. J Hosp Infect. 2009 Mar; 71(3):228-33.
- 3 Kampf G, Ostermeyer C, Heeg P, Paulson D. Evaluation of two methods of determining the efficacies of two alcohol-based hand rubs for surgical hand antisepsis. Appl. Environ. Microbiol. 2006; 72: 3856-3861.
- 4 Rotter M L, Kampf G, Suchomel M, Kundi, M Long-term effect of a 1.5 minute surgical hand rub with a propanol-based product on the resident hand flora Journal of Hospital Infection, Volume 66, issue 1 (May, 2007), p. 84-85.
- 5 Kampf G, Voss A, Widmer AF. Die chirurgische Händedesinfektion zwischen Tradition und Fortschritt Hyg Med 2006; 31 [7+8]: 316–321



Sterillium®

The classic among alcohol-based hand disinfectants. Thanks to its reliable antimicrobial activity and skin tolerability that have stood the test for over 50 years it is the favourite product of millions of users throughout the world.

Sterillium[®] classic pure

Colourant and fragrance-free alternative to Sterillium for particularly sensitive skin.

<complex-block>

* Source: RCTS, Barry (2014)

- comprehensively active against bacteria, yeasts and enveloped viruses
- particularly kind to skin and lipid replenishing
- increases skin hydration with regular use
- excellent skin tolerability even with long-term use
- possesses an excellent immediate effect

Active ingredients in 100 g

Propan-2-ol 45.0 g, propan-1-ol 30.0 g, mecetronium ethyl sulphate 0.2 g.

Microbiological activity

Bactericidal, yeasticidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV). Active against adeno-, polyoma- and rotavirus.

Areas of application

Sterillium and Sterillium classic pure is used as ready-to-use alcohol-based rub-in product – independently of water and wash-basin – to prevent infection in all areas of health care

and industry where hygiene is important as well as in home dialysis and when travelling. Sterillium classic pure contains no colourants and fragrances. Thus, it is particularly well-suited for users suffering from allergies and hypersensitivities.

Directions for use

To be rubbed undiluted into dry hands. Hands have to be kept moist with Sterillium/ Sterillium classic pure during the entire application time.

Proven efficavy

hygienic hand disinfection EN 1500 surgical hand disinfection EN 12791 bactericidal EN 13727 yeasticidal EN 13624 mycobactericidal EN 14348	
bactericidal EN 13727 yeasticidal EN 13624	30 sec
yeasticidal EN 13624	1.5 min
	15 sec
mycobactericidal EN 1/13/8	15 sec
	30 sec

Sterillium[®] med

The hand disinfectant with norovirus* and full virucidal efficacy (EN 14476) within hygienic hand disinfection. Offers a very good skin tolerability as it comes with the well-proven Sterillium skincare complex.



- comprehensively active including virucidal activity within application time for hygienic hand disinfection
- increases skin hydration with regular use
- very good skin tolerability
- possesses an excellent immediate effect
- colourant- and fragrance-free

Active ingredient in 100 g

Ethanol 85.0 g.

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum of virucidal activity incl. murine norovirus (MNV), virucidal.

Areas of application

Sterillium med is suitable for hygienic and surgical rub-in hand disinfection. Sterillium med is free from colourants and fragrances and thus is particulary suitable for users with sensitive skin.

Thanks to its highly efficient formula with 85% ethanol, Sterillium med provides full virucidal activity incl. norovirus* within hygienic hand disinfection and thus is ideally suitable for year round infection prevention.

Directions for use

Sterillium med is rubbed undiluted into dry hands. Hands have to be kept moist with Sterillium med during the entire application time.

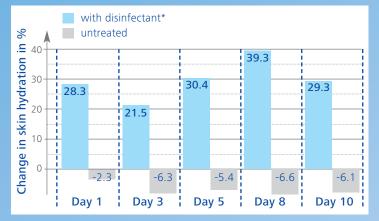
Proven efficacy

hygienic hand disinfection EN 1500	30 sec
surgical hand disinfection EN 12791	1.5 min
bactericidal EN 13727	15 sec
fungicidal EN 13624	30 sec
mycobactericidal EN 14348	15 sec
virucidal EN 14476	30 sec

* tested with the murine norovirus (MNV)

Sterillium® increases skin hydration

The skin's health is the basis for effective hand hygiene. A randomised study under practical conditions investigated the effect of an alcohol based hand disinfectant on the skin*.



The regular use of the disinfectant causes the skin hydration to increase by approx. 30 %. Over the study period, the skin hydration of the untreated hand decreased.

Over a time period of 10 days, the disinfectant was applied 300 times: 30 times every day, one hand of the test subjects was disinfected with 3 ml for 30 seconds. The second hand was not treated and served as control. The skin condition was assessed and the skin hydration was determined with a corneometer. At every measuring timepoint, the skin hydration of the disinfected hand was significantly higher than the baseline value and the skin hydration of the control. The skin hydration of the untreated hand, however, even decreased.

Conclusion: The repeated use of Sterillium increases the skin hydration.

* The study was conducted with Sterillium classic pure, the colourant and fragrancefree variant of Sterillium. The skin-hydrating properties can be attributed to a products' skincare substances (e.g. tetradecanol and glycerine). These are identical in Sterillium classic pure and Sterillium. Hence, the results of the study conducted with Sterillium classic pure can also be fully applied to Sterillium.

Source: RCTS, Barry (2014)



Sterillium[®] Gel

Highly effective hand disinfection gel with broad spectrum of activity and tried and tested moisturising complex.

Sterillium® Gel pure

Fragrance-free alternative to Sterillium Gel for particularly sensitive skin.



- comprehensive antimicrobial activity against bacteria, fungi and viruses
- including norovirus* activity within application time for hygienic hand disinfection
- increases skin hydration with regular use
- excellent skin tolerability even with long-term use
- possesses an excellent immediate effect

Active ingredient in 100 g

Ethanol 85.0 g.

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum of virucidal activity incl. murine norovirus (MNV), virucidal.

Areas of application

For hygienic and surgical rub-in hand disinfection – independent of washbasin and water. For all areas that are relevant to hygiene, e.g. in health care and industry, in homecare of patients, elderly and babies, home dialysis. Protects against infections in public facilities and traveling.

Directions for use

Sterillium Gel/Gel pure is rubbed undiluted into dry hands. Hands have to be kept moist with Sterillium Gel/ Gel pure during the entire application time.

Proven efficacy

-	
hygienic hand disinfection EN 1500	30 sec
surgical hand disinfection EN 12791	1.5 min
bactericidal EN 13727	15 sec
fungicidal EN 13624	30 sec
mycobactericidal EN 14348	15 sec
virucidal EN 14476	1 min

* tested with the murine norovirus (MNV)

Protection and care

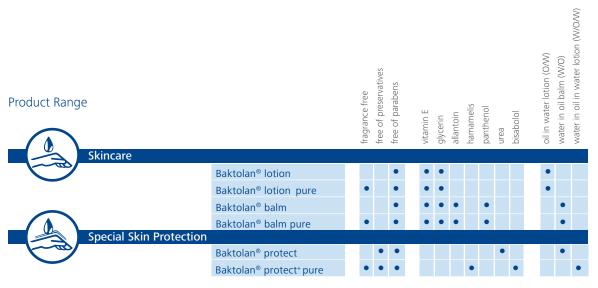
Comprehensive skin care.



In everyday professional life, hands are often exposed to environmental factors.

Repeated skin care after skin-stressing activities such as handwashing regenerates the skin and maintains its protective acid mantle, thus preventing skin irritation and diseases (e.g. eczema).

Additionally, intact and well cared for skin is the essential basis for safe hand hygiene. The reason: only intact skin can be disinfected and protected thoroughly and effectively.





Skincare

Baktolan[®] lotion Baktolan[®] lotion pure

Baktolan[®] balm Baktolan[®] balm pure Moisturising, fast absorbing o/w lotion for normal skin. Moisturising, fragrance-free and fast absorbing o/w lotion for normal skin.

Intensively nourishing w/o balm for dry and sensitive skin. Intensively nourishing , fragrance-free w/o balm for dry and sensitive skin.



Special skin protection

Baktolan[®] protect Baktolan[®] protect+ pure Moisturising w/o cream for highly stressed skin. The rich formular portects hands from water-based solutions. Innvoative w/o/w lotion for protection against aqueous solutions and for regenerating care at the same time of dray and highly stressed skin.

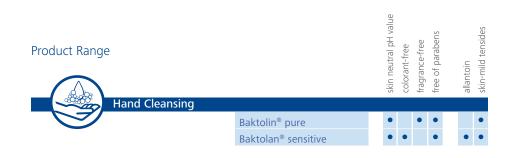
Targeted handcleansing

Less is more.



There are situations in hand hygiene that require washing the hands. Thus, a skin tolerant wash lotion is essential. In the following situations handwashing is recommended:

- before each shift to remove possible spores from the hands
- (spores cannot be inactivated by alcohol-based hand disinfectants)
- after using the toilet
- when hands are visibly soiled
- before eating





Hand cleansing

Baktolin[®] pure

Baktolin[®] sensitive

Standard wash lotion for the mild hand cleansing. Colourant- and fragrance free. Mild wash lotion containing nourishing substances for the gentle cleaning.

Methods for testing a wash lotion's skin compatibility



Frequent handwashing may lead to skin irritations. Hence, the tolerability of wash lotions is key. Epicutaneous patch tests are a scientifically validated method for proving the skin compatibility. For these, the test product is applied to the test subjects' skin, mostly on the back, and left there for 24 hours. After patch removal, the skin's condition is inspected visually over a time period of 72 hours. Using this procedure, independent expert reports confirmed the very good skin compatibility of the Baktolin wash lotions [1, 2].

- Skin Investigation and Technology Hamburg GmbH (2013) Summary report Baktolin pure. Skin compatibility testing – 24- hour epicutaneous patch test.
- 3. Skin Investigation and Technology Hamburg GmbH (2013) Summary report Baktolin sensitive.Skin compatibility testing – 24- hour epicutaneous patch test.



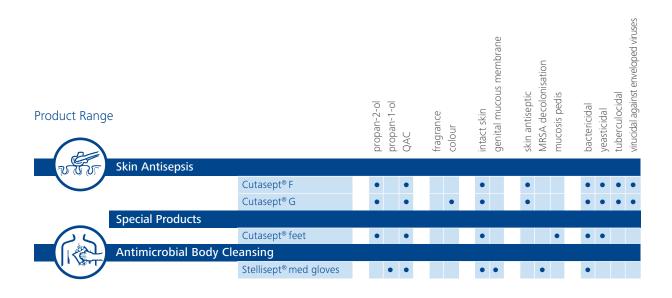
Skin

Any medical procedure penetrating the skin's protective barrier – for example, punctures, injections, placement of catheters or surgical procedures – carries the inherent danger of infection: Microorganisms colonising the skin may reach deeper tissue layers and trigger abscesses or inflammation there. If they reach the bloodstream, there is a risk of bloodstream infection.

The aim of skin disinfection (skin antisepsis) is to reduce the entire skin flora as much as possible. Alcohol-based preparations, such as Cutasept, are preferably used for the antisepsis of intact skin. They act rapidly and comprehensively while featuring good skin tolerability.

Another prophylactic measure is the decolonisation of patients who are proven carriers of (MRSA/ORSA, VRE).

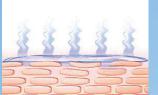
A decrease of (MRSA/ORSA, VRE) carriage can reduce the risk of transmission in healthcare settings and of inoculation to the patient's own surgical wound during surgery. In this context, decolonisation mainly refers to the use of topical products, such as Stellisept med.



Sustained activity of skin antiseptics

The skin's own (resident) microorganisms are able to regrow from deeper skin layers and reach the surface. Due to the high initial reduction in microorganisms, alcohol-based skin antiseptics also have a strong effect on resident microorganisms.





Alcohol-based skin antiseptics are very Afi efficient and yield a strong initial eva reduction in microorganisms on the skin.

After the exposure time, the alcohol evaporates without leaving any residue.

Thus, they retard the growth of the resident flora. Skin antiseptics that have been proven to be effective in practical trials to determine the sustained effect in accordance with the German Society for Hygiene and Microbiology (DGHM) [1] possess sustained activity: even after 24 hours, the initial reduction in resident microorganisms still almost the same [2, 3].

- Desinfektionsmittel-Kommission der DGHM: Richtlinie f
 ür die Pr
 üfung und Bewertung von Hautdesinfektionsmitteln – Stand 1.1.1991. Zbl Hyg 1991; 192: 99-103.
- 2 Heeg P. Wirksamkeit von Cutasept F gegen die residente Hautflora. Krankenhaushygieniker. Tübingen, 09.08.1992.
- 3 Christiansen B. Begutachtung von Cutasept G (gefärbt) als Präparat für die Hautdesinfektion. Leiterin der zentralen Einrichtung Medizinaluntersuchungsamt und Krankenhaushygiene Universitätsklinikum Schleswig-Holstein, Campus Kiel, 21.07.2004.



Cutasept[®] F

Colourless propanol-based skin antiseptic. For the use before injections, punctures and surgical procedures with fast and comprehensive activity.

- colourless
- · acts rapidly and comprehensively
- 24 hours long-lasting effect
- excellent skin tolerability
- particularly economical through application aids



Active ingredient in 100 g

Propan-2-ol 63.0 g, benzalkonium chloride 0.025 g.

Microbiological activity

Bactericidal, yeasticidal, tuberculocidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), rotavirus.

Areas of application

Cutasept F is recommended for the following application areas:

- skin antisepsis prior to injections, punctures and surgical procedures in hospitals, primary healthcare, in- and outpatient geriatric care, and for home dialysis
- for diabetics within the scope of measuring the blood sugar level and insulin delivery



Proven efficacy

On skin with a low density of sebaceous glands:

prior to puncture and injections at least 15 sec

prior to punctures of joints, visceral cavities, hollow organs at least 1 min

On skin with a high density of sebaceous glands:

prior to every procedure	
at least	2 min

Cutasept[®] G

Coloured propanol-based skin antiseptic. For the use before surgical procedures, punctures and injections with fast and comprehensive activity.

- coloured for marking the disinfection area
- · acts rapidly and comprehensively
- 24 hours long-lasting effect
- excellent skin compatibility
- particularly economical through application aids



Active ingredient in 100 g Propan-2-ol 63.0 g,

benzalkonium chloride 0.025 g.

Microbiological activity

Bactericidal, yeasticidal, tuberculocidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), rotavirus.

Areas of application

Cutasept G is recommended for the following application areas:

- preoperative skin preparation with marking of the disinfection area
- skin antisepsis prior to injections, punctures and surgical procedures in hospitals, primary healthcare, in- and outpatient geriatric care, and for home dialysis



Proven efficacy

On skin with a low density of sebaceous glands:

prior to puncture and injections at least 15 sec

prior to punctures of joints, visceral cavities, hollow organs at least 1 min

On skin with a high density of sebaceous glands:

prior to every	procedure	
at least		2 min

Cutasept® feet

Reviving foot spray. Twofold effect: footcare and the prophylaxis of athlete's foot.





- vitalizing freshness for tired feet
- helps to prevent athlete's foot
- acts reliably in 30 seconds against fungi, fungi spores and bacteria
- skin friendly, fragrance- and colourant-free

Areas of application

In wash and shower rooms, swimming pools and saunas. In case of prolonged wearing of the same footwear such as rubber boots, work shoes and socks or when shoes are shared by different people, e.g. when renting bowling shoes or ski boots.

Directions for use

Spray Cutasept feet undiluted onto the skin, socks or into the shoes. Ensure complete coverage for 30 seconds and let dry.

Yeasticidal (EN1275) 30 sec



Stellisept® med gloves

Ready-to-use antimicrobial body wash gloves. Comprehensively active against bacteria incl. MRSA/ORSA and VRE.



- Practical ready-to-use antimicrobial body wash gloves for an easy antimicrobial cleansing of immobile patients
- no rinsing after application ("leave-on" product)
- very good skin and mucous membrane tolerance
- comprehensive activity against bacteria incl. MRSA/ ORSA and VRE
- without colourants and perfume
- Stellisept med gloves can be warmed in the microwave for a more pleasant application or be cooled for a refreshing application

Areas of application

Stellisept med gloves are ready-to-use antimicrobial body wash gloves and for MRSA eradication in accordance with the Robert-Koch-Institute recommendation.

Due to its skin-friendly formulation there is no rinsing with water necessary after the application of Stellisept med gloves. Stellisept med gloves are a convenient solution and at the same time a pleasant antimicrobial body wash for bed-ridden patients.

Directions for use

One flow-pack contains 10 Stellisept med gloves allowing you to use fresh gloves for different body regions to effectively prevent the spread of dirt or microorganisms. Stellisept med gloves are ready to use and must not be mixed with other soaps or solutions. No rinse necessary after application.

Hygienic Handwash (EN1499)	60 sec
Bactericidal (EN 13727)	60 sec



Skin-friendly MRSA eradication



Body cleansing products with proven effect against MRSA/ORSA are part of an MRSA decolonisation concept (1). Here, in addition to proven bactericidal activity (2), skin compatibility plays a major role in product selection.

Application tests on mucous membranes under medical, dermatological

supervision provide evidence of a product's skin compatibility (3, 4). According to the EU Cosmetics Directive (5), cleansing products that remain on the skin – commonly known as leave-on products – need to fulfil stringent requirements to prove their skin tolerability. The selection of corresponding ingredients ensures that the cleansing preparation is gentle to the skin in spite of its antimicrobial activity.

Another advantage of leave-on products is that they do not need to be rinsed off – a relief for both patients and caregivers. And what's even more: they help prevent possible application errors as the exposure time cannot fall below the prescribed value.

- 1 Kommission für Krankenhaushygiene und Infektionsprävention am RKI: "Empfehlungen zur Kontrolle von Methicillinresistenten *Staphylococcus aureus*-Stämmen (MRSA) in Krankenhäusern und anderen medizinischen Einrichtungen", Bundesgesundheitsbl-Gesundheitsforsch-Gesundheitsschutz (42) 1999, 954-958.
- 2 Bakterizidie-Nachweis gemäß den Anforderungen der EN 1499 und EN 13727 sowie gegenüber den national auftretenden MRSA-Epidemiestämmen sowie klinischen MRSA-Isolaten.
- 3 Dr. med. Werner Voss: Anwendungstest
- Stellisept med foam. Dermatest GmbH, Münster; 2009. 4 Dr. med. Werner Voss: Anwendungstest
- Stellisep med tissues. Dermatest GmbH, Münster; 2009. 5 EU Cosmetics Directive 76/ 768/ EEC



Research for infection protection. www.bode-science-center.com



Bacillol. 3

Demand-oriented selection

Cost effectiveness and material compatibility play a major role in surface hygiene. More than this, our products offer rapid and broad activity and high convenience.

Routine and targeted disinfection of surfaces in healthcare facilities is an essential component of standard hygiene to protect patients. However, the contamination of surfaces and the associated risks are frequently underestimated. Particularly near-patient surfaces and those often touched by patients and staff are a potential source of transmission.



In industry, contaminated surfaces are a risk of product contamination. In healthcare settings, they pose a risk of infection. Microorganisms are able to persist on inanimate objects for weeks and even months. In contact with these surfaces the germs can get on the staff's hands and, thus, be further spread. Surface disinfection has the aim of killing or inactivating relevant pathogens to eliminate their potential danger. Ideally, disinfection and cleaning are combined in one step so that it is not necessary to additionally clean the surfaces before disinfection.

With modern active ingredients, minimal product toxicity, low use concentrations and great user convenience, the surface products from BODE stand the test in all areas: from routine surface disinfection to target disinfection.

For routine prophylactic surface disinfection in healthcare settings we recommend a use concentration with an exposure time of one hour – however, you do not have to wait one hour, disinfected areas may already be entered after the disinfectant solution has dried completely.

For targeted surface disinfection, the exposure time and concentration depends on the necessary spectrum of activity. When selecting these, make sure the test methods apply to the area to be disinfected and practical tests have been carried out.

Our recommendations are based on efficacy proofs according to European Norms.

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

Persistence of germs on surfaces

Persistence of several clinically relevant pathogens on inanimate surfaces					
Bacteria					
Klebsiella spp	up to 30 months				
Pseudonomas aeruginosa	up to 16 months				
Escherichia coli	up to 16 months				
Staphyloccus aureus inkl. MRSA	up to 7 months				
Enterococcus spp. inkl. VRE, VSE	up to 4 months				
Fungi					
Candida albicans	up to 4 months				
Viruses					
Vaccinia virus	up to 5 months				
Adeno virus	up to 3 months				
HAV	up to 2 months				
Norovirus	up to 7 days				

Contaminated surfaces may pose a risk of infection to patients and staff (1). Many clinically relevant pathogens have been shown (2) to be able to survive on inanimate surfaces for weeks or months and remain infectious there (see table). These microorganisms may then be spread by contact with the contaminated surfaces. Hence, there is a constant threat of cross contamination: a study demonstrated that hands contaminated with viruses from a surface can spread the viruses to five other surfaces and 14 other objects (3). The safest way to prevent such cross contaminations is the prophylactic and targeted surface disinfection of potentially and actually contaminated surfaces. In addition, it is imperative to comply with hand hygiene measures.

 Otter J.A., Saber Y., French G.L., The role played by contaminated surfaces in the transmission of nosocomial pathogens. Review article. Infect Control Hosp Epidemiol 2011;32(7):687-699
 Kramer A., Schwebke I., Kampf G., How long do nosocomial

- pathogens persiston in inanimate surfaces? A systematic review. BMC Infect. Dis. 2006; 6:130.
- Groß T., Die Ausbreitung viraler Infektionskrankheiten. Diss.,
- Universität Witten/Herdecke, 1999.



Most pathogens are able to survive on inanimate objects for several months, thus being asource of preventable nosocomial infections (2)



Product	Range
	5

Product Range Surface	propan-2-ol	propan-1-ol	ethanol	U	amine	aldehyde	magnesium monoperoxyphthalate	ready-to-use	BODE X-Wipes	sensitive surface incl. Plexiglas $^{\otimes}$	Medical Device class IIa*	Medical Device class IIb	Biocidal Product Directive	cleaning	disinfection	bactericidal	yeasticidal	fungicidal	tuberculocidal	mycobactericidal	virucidal against enveloped viruses	limited spectrum of virucidal activitiy	virucidal	sporicidal
Mikrobac®	pro	pro	eth	QAC	am	ald	ma	rea	BO	sen	Me	Me	Bio	cle	disi	bac	уеа	fun	tub	my	viru	lim	viru	spc
Mikrobac [®] forte				•	•				•	•	•		•	•	•	•	•		•		•	•		
Mikrobac [®] Tissues				•				•		•	•		•	•	•	•	•					•		
Mikrobac® Virucidal Tissues				•				•		•		•	•	•	•	•	•	•			•	•	•	
Dismozon®																								
Dismozon [®] plus							•			•		•	•	•	•	•	•	•	•	•	•	•	•	•
Bacillol®																								
Bacillol® AF	•	•	•					•	•		•		•		•	•	•	•	•	•	•	•		
Bacillol [®] AF Tissues	•	•	•					•			•		•		•	•	•	•	•	•	•	•		
Bacillol [®] Tissues	•	•	•					•			•		•		•	•	•	•	•	•	•	•		
Bacillol [®] 30 Foam	•	•	•					•	•	•	•		•	•	•	•	•		•	•	•			
Bacillol [®] 30 Tissues	•	•	•					•		•	•		•	•	•	•	•		•	•	•			
X-Wipes® – Using X-Wipes with Mikrobac®, Bacillol®, an	d Ko	ohrso	olin®.																					
BODE X-Wipes	SODE X-Wipes see above for used product																							
BODE X-Wipes Safety Pack	see	e abo	ove f	or us	sed p	orod	uct																	

Mikrobac® forte

The aldehyde-free concentrate for everyday use that safely protects materials.

- broad spectrum of effect
- good cleaning power
- very good material compatibility

Active ingredients

Benzyl-C12-18-alkyldimethylammoniumchlorides 199 mg/g, N-(3aminopropyl)-N-dodecyl-propane-1,3-diamine 50 mg/g

Microbiological activity

Bactericidal, yeasticidal, tuberculocidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), imited spectrum of virucidal activity.

Areas of application

For the daily cleaning disinfection of all washable surfaces in medical areas where an odourless disinfection is required. Suitable for the use in industrial kitchens and food processing areas as these require aldehyde-free products.



Proven efficacy

bactericidal EN 13727, DGHM	0.5 % – 1 h
yeasticidal EN 13624, DGHM	0.5 % – 1 h
virucidal against envelop viruses (incl. HBV, HIV, H acc. to DVV/RKI	
limited spectrum of virue EN 14476	cidal activity 4.0% – 4 h

Also tested for use in food and industrial areas according to European Standards EN 1276, EN 1650 and EN 13697.



Mikrobac[®] Tissues / in XXL-size

Alcohol-free disinfectant wipes for cleaning disinfection of alcohol-sensitive surface and medical decive – available in standard and XXL size.

- ready-to-use disinfectant wipe
- patented system: optimal release of active ingredients during disinfection
- particularly gentle on a wide range of materials
- colourant- and fragrance-free





Active ingredients

Benzyl-C12-18-alkyldimethylammoniumchlorides 4 mg/g, didecyldimethylammonium chloride 4 mg/g

Microbiological activity

Bactericidal, yeasticidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), murine norovirus (MNV), polyoma- and rotaviruses.

Areas of application

Mikrobac Tissues are suitable for the convenient cleaning disinfection of sensitive surfaces and medical devices that cannot be submerged in liquids.



Proven efficacy

bactericidal EN 13727, EN 16	5615
- dirty conditions	30 sec
yeasticidal EN 13624, EN 166	615
- dirty conditions	30 sec
virucidal against enveloped v (incl. HBV, HIV, HCV) EN 144	
- dirty conditions	15 sec

Also tested for use in food and industrial areas according to European Standards EN 1276, EN 1650 and EN 13697.

Mikrobac® Virucidal Tissues

Mikrobac Virucidal Tissues are your reliable companion in daily routine, whenever a comprehensive efficacy is mandatory.

- ready-to-use disinfection wipes
- also suitable for medical devices such as ultrasound probes for transvaginal, transrectal examinations that come into contact with mucous membranes
- fully virucidal: comprehensively active against enveloped and nonenveloped viruses, including MNV
- comprehensively effective against *Clostridium difficile*-spores
- suitable for alcohol-sensitive
 materials
- contains no alcohols, aldehydes, colourants or fragrances

Active ingredients

Benzyl-C12-18-alkyldimethylammoniumchlorides 2,45mg/g; Didecyldime-thylammonium chloride 2,45 mg/g

Microbiological activity

bactericidal, yeasticidal, fungicidal, *Clostridium difficile*-Spores, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum virucidal activity, virucidal

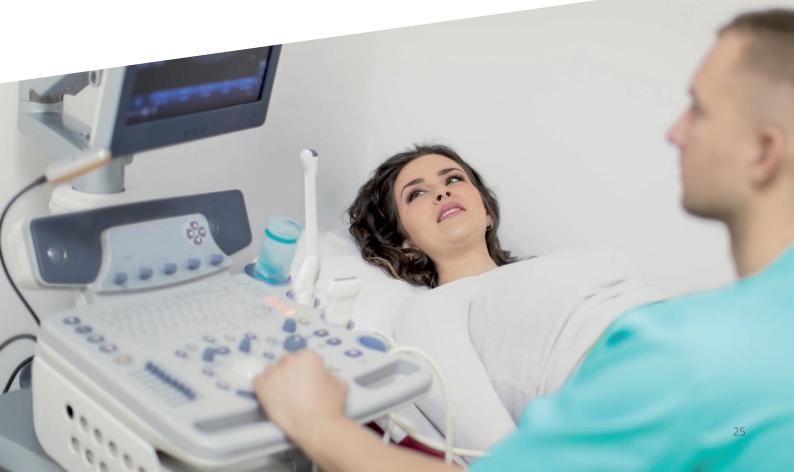
Areas of application

Mikrobac Virucidal Tissues clean and disinfect alcoholsensitive non-invasive and invasive medical devices and surfaces and may be used for the reprocessing of ultrasound probes for transvaginal, transrectal or abdominal examination. Mikrobac Virucidal Tissues are especially suitable when a comprehensive spectrum of activity is required, for example in case of noroviruses.

Proven efficacy

bactericidal activity EN 13727 EN 16615 - dirty conditions	, 2 min
yeasticidal activity EN 13624, EN 16615 - dirty conditions	2 min
fungicidal activity EN 13624 - dirty conditions EN 16615 - dirty conditions	30 sec 5 min
limited spectrum of virucidal a EN 14476	activity 30 sec
virucidal EN 14476 - dirty conditions	30 sec
activity against <i>C. diff.</i> spores EN 13704 - clean conditions	10 min







Dismozon® plus

Oxygen-active, high-level surface disinfectant cleaner.

- exceptionally broad material compatibility
- mild, pleasant scent
- low residue
- supplied as a granulate
- offered in practical sachets

Active ingredients

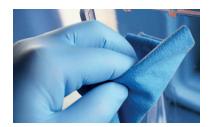
Magnesium monoperoxyphthalate hexahydrate 958 mg/g.

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum of virucidal activity, virucidal, sporicidal.

Areas of application

For the comprehensive high-level disinfection of washable surfaces in a variety of medical areas and the industry. Recommended for routine use in sensitive and patientnear areas such as operating theatres, intensive care units and obstetric units. Suitable for the gentle and reliable disinfection of highly sensitive medical devices.

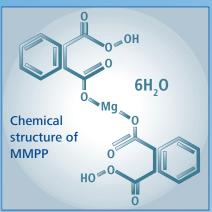


Proven efficacy

bactericidal EN 13727	,
DGHM	0.3 % – 1 h
yeasticidal EN 13624,	
DGHM	0.3 % – 1 h
limited spectrum of vir	ucidal activity
EN 14476	0.4 % - 15 min
virucidal EN 14476	0.4 % – 1 h
sporicidal EN 14347	1.2 % – 4 h



High-performance disinfection of sensitive surfaces with MMPP



In case sensitive medical devices made from Makrolon[®], Plexiglas[®] or polysulfone require virucidal or sporicidal disinfection, conventional active agents may damage the material. The active oxygen magnesium monoperoxyphthalate hexahydrate, however, is both material-friendly (1) and powerful (2, 3).

When using a special manufacturing process to granulate the MMPP, no segregation occurs as with some powder formulations. Thus, the granules ensure a homogeneous content of active ingredient. But also for occupational safety the granules are of advantage: virtually no respirable dust develops.

The granules unfold their microbiological activity in combination with water only.

- Prof. h. c. H. Hopfstock. Beurteilung der Spannungsrissbildung im Biegestreifverfahren bei Plexiglas, Polysulfon, Makrolon. IFUS Privates Forschungsinstitut für internationale Umwelt- und Sanierungsangelegenheiten GmbH, Soltau. 16.10.1998.
- Prof. Dr. med. J. Beckert. Sporizide Wirksamkeit von Dismozon pur. Direktor des
- Instituts für Hygiene der Medizinischen Universität zu Lübeck. 09.01.1989. Dr. J. Steinmann. Viruzide Wirkung von Dismozon pur gegen Poliovirus Typ 1, Stamm Mahoney. Staatliches Hygiene-Institut, Bremen. 17.03.1986.



Bacillol® AF

Aldehyde-free, alcohol-based rapid disinfectant.

- ready-to-use disinfectant solution
- rapid and comprehensive activity
- broad material compatibility with alcohol-resistant surfaces
- quick and residue-free drying
- colourant- and fragrance-free

Active ingredients

Propan-1-ol 450 mg/g, propan-2-ol 250 mg/g, ethanol 47 mg/g

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum of virucidal activity, polyomaviruses.

Areas of application

Suitable for the rapid disinfection of alcohol-resistant surfaces, especially in areas where residue-free drying is required as surfaces come into contact with sensitive products.



Bacillol® AF Tissues

Ready-to-use, alcohol-based disinfection wipes in a practical flow pack.

- ready-to-use tissues soaked with Bacillol AF
- fast-acting
- good wetting and rapid drying
- small and practical flow pack which is easy to store
- simple and safe withdrawal of single tissues due to special folding technique
- very soft material and convenient size

Areas of application

Bacillol AF Tissues are the optimal product for disinfection of small and medium alcohol-resistant surfaces and medical devices. The flow pack offers convenient handling and storage.



Bacillol® Tissues

Ready-to-use, alcohol-based disinfection wipes for rapid disinfection.



- tissues soaked with Bacillol AF
- practical container to ensure easy withdrawal
- refillable
- good wetting and rapid drying
- rapid and comprehensive activity

Areas of application

Bacillol Tissues are well suitable for the uncomplicated disinfection of smaller surfaces or medical equipment such as stethoscopes, hand and angle pieces in dental practice or other alcohol-resistant parts of medical devices. The active ingredients, microbiological activity and directions for use are identical to the data for Bacillol AF (see this page above).



Proven efficacy

•	
bactericidal EN 13727, EN 16615	conc. – 30 sec
yeasticidal EN 13624, EN 16615	conc. – 30 sec
fungicidal EN 13624, DGHM	conc. – 5 min
tuberculocidal DGHM	conc. – 60 sec
mycobactericidal EN 1 DGHM	4348, conc. – 30 sec
virucidal against envelo (incl. HBV, HIV, HCV) a DVV/RK	
limited spectrum of vir EN 14476	ucidal activity conc. – 60 sec

Also tested for the use in food and industrial areas according to European Standards EN 1276, EN 1650 and EN 13697.



The active ingredients, microbiological activity and directions for use are identical to the data for Bacillol AF (see this page above).

Bacillol® 30 Foam

Aldehyde-free, material-friendly disinfectant for rapid disinfection of sensitive surfaces.

- ready-to-use disinfectant solution
- rapid activity and good wetting capacities
- especially material friendly, also on sensitive materials such as synthetic leather, Makrolon, Plexiglas and Polysulfon
- can be used as a foam in combination with a special foam spray head or as a liquid
- colourant- and fragrance-free

Active ingredients

Ethanol 140 mg/g, propan-2-ol 100 mg/g,propan-1-ol 60 mg/g, n-alkyl-aminopropyl-glycine 5 mg/g

Microbiological activity

Bactericidal, yeasticidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), murine norovirus (MNV), polyoma- and rotaviruses.

Areas of application

For the rapid spray/wipe disinfection of surfaces in all areas that require rapid and effective disinfection. Suitable for the use on sensitive synthetic materials that are not resistant to high alcohol concentrations.

Suitable for the disinfection of displays, monitors, touch screens, keyboards and control panels of medical devices as well as communication devices.



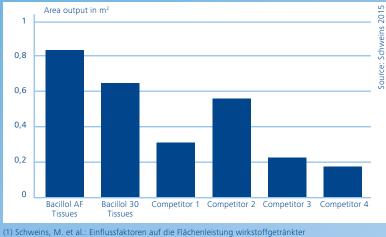
Proven efficacy

bactericidal EN 13727,	
EN 16615	conc. – 30 sec
yeasticidal EN 13624,	
EN 16615	conc. – 30 sec
tuberculocidal EN 1434	18
	conc. – 5 min
mycobactericidal EN 14	1348
	conc. – 5 min
virucidal against envelo	ped viruses
(incl. HBV, HIV, HCV) a	cc. to
DVV/RK	conc. – 30 sec
rotavirus acc. to EN 14	476
	conc. – 1 min

Also tested for the use in food and industrial areas according to European Standards EN 1276, EN 1650 and EN 13697.

Area output depends on many factors

Comparison of area output of single-use tissues saturated with alcohol



 Schweins, M. et al.: Einflussfaktoren auf die Flachenleistung wirkstoffgetrankter Einmal-Wischtücher zur Reinigung und Desinfektion im medizinischen Bereich, 2015. Published by Hygiene & Medizin, mhp Verlag.
 Both products from PAUL HARTMANN AG, Heidenheim, Germany A practical study (1) investigated the area output of 6 commercially available single-use tissues pre-soaked in an alcohol-based disinfection solution. Although the tissues almost had the same sizes, their area outputs varied greatly.

Polyester fibres release more liquid than cellulose fibres. And a high liquid content on delivery as well as the combination of active ingredients may have a positive impact on the area output. Best in test were Bacillol AF Tissues and Bacillol 30 Tissues (2) with low alcohol content.



Bacillol® 30 Tissues / in XXL size

Areas of application

dripping into the device.

Bacillol 30 Tissues are suitable for the convenient

disinfection of all sensitive surfaces that require rapid

and comprehensive efficacy. Especially well suitable for

the disinfection of displays, monitors and keyboards as

the optimally soaked tissues minimise the risk of product

Ready-to-use wipes for the disinfection of sensitive surfaces in a practical flow pack.

The active ingredients, microbiological activity and directions for use are identical to the data for Bacillol 30 Foam (see page 29).



Taking new paths

soft PET-tissues soaked with

excellent wetting capacities

in two tissue sizes/dimensions

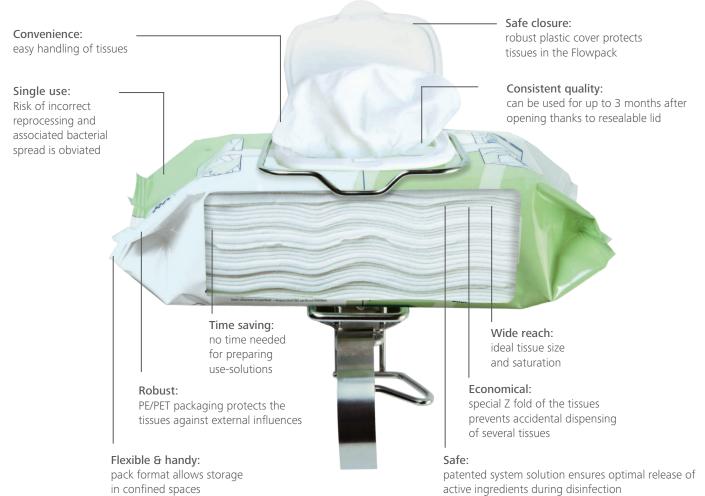
broad material compatibility also

Bacillol 30 Foam

and fast activity

for sensitive surfaces

Disinfection tissues in the flow pack for hygiene always ready to hand. Simple – fast – safe.





X-Wipes Safety Pack

The new generation of wipes dispenser systems.

With its innovative X-WIPES Safety Pack, HARTMANN sets standards for the quality of hygiene.

The new stand-up pouch with fleece roll, usable with all liquid surface disinfectants* from HARTMANN, offers a simple and clean single-use solution.

* not suitable for Dismozon plus

Advantage: No need for reprocessing, which minimises the risk of contamination and prevents the development of biofilms. And the reduced amount of work saves much time.

X-Wipes Safety Pack meet the high hygiene requirements when using wipes dispenser systems in high-risk areas (e.g. intensive care units).



X-Wipes

All-purpose fleece wipe dispenser system usable with all liquid surface disinfectants and several products of the instrument disinfectant range from HARTMANN.

- design without cavities, recesses and edges which facilitates cleaning
- particularly economic and hygienic single use of wipes
- for maximum safety: Fleece roll in foil bag for contamination-free application
- coloured withdrawal system for easy product distinction when using different preparations
- stable dispenser with attached handle
- tear-resistant
- absorbent fleece wipes that do not absorb active ingredients

* not suitable for Dismozon plus

Packed with safety

All hygiene bags are delivered with a new dispensing insert lid. With every exchange of the fleece wipe roll, components are replaced to strictly prevent the spread of microorganisms.

Areas of application

For the disinfecting surface cleaning in all areas requiring maximum hygiene, costeffectiveness and user convenience. Particularly suitable for areas that need to be disinfected several times a day. For use-solutions of aqueous concentrates with exposure times of one hour or less.

Instrument reprocessing: for the pre-cleaning (Bodedex forte) and disinfecting precleaning (Bomix plus) respectively of flexible endoscopes, and for the disinfection of non-immersible medical devices such as ultrasonic heads and non-immersible probe heads (Korsolex extra).

Directions for use and dosage

With inserted fleece roll, the X-Wipes dispenser is filled with the ready-to-use solution. For rolls with 90 wipes/ fleece roll in foil bag, the fill quantity is 2.5 - 3 litres, for rolls with 40 wipes it is 1.5 litres. Rolls with 30 wipes are prepared in the X-Wipes can with a filling quantity of 0.75 litres.

With HARTMANN liquid disinfectant solutions, the X-Wipes have a standing time of 28 days; with a Bodedex forte cleaning solution, the standing time is 7 days.

For refilling the dispenser system, the dispenser requires manual or automated reprocessing. Recommendations available.

X-Wipes fleece roll Roll with 90 wipes

Roll with 40 wipes Roll with 30 wipes

X-Wipes fleece roll in foil bag Roll with 90 wipes

Basic X-Wipes fleece roll Roll with 90 wipes

X-Wipes dispenser for rolls with 40 and 90 wipes

Available with blue, green and red lid

X-Wipes can for rolls with 30 wipes

X-Wipes wall holder



Instruments

Safe reprocessing

More than ever, instrument reprocessing has to cope with a demanding task. Our products are developed in accordance with the latest scientific findings and legal requirements by using state-of-the-art technology.



Patient and personal safety as well as long-term maintenance of the instruments' value is the main focus of appropriate reprocessing of contaminated instruments.

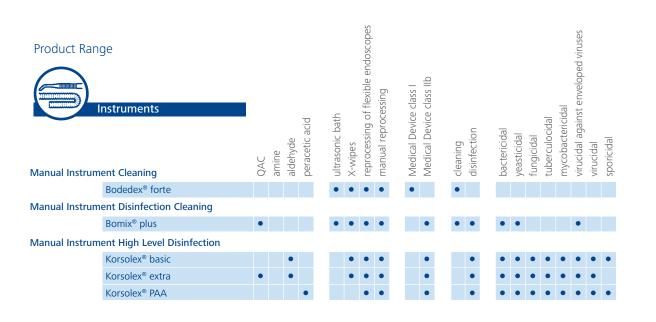
Medical devices and instruments respectively that are not intended for single use need to be reprocessed directly after use.

In contrast to automated reprocessing, manual reprocessing involves many risks. To ensure a consistent quality level, manual reprocessing procedures should be standardised and documented in writing.

In principle, the instruments need to be cleaned thoroughly before disinfection to prevent fixation of residue such as blood. The instrument cleaner Bodedex forte is tailored to the specific demands in instrument cleaning, especially of flexible endoscopes.

Another possibility is to combine the cleaning and disinfection in one single step using products such as Bomix plus. However, the selection of the right disinfectant suiting the different reprocessing steps very much depends on the required efficacy and material compatibility.

BODE's instrument disinfection products meet the quality and efficacy requirements of the European standards. Many of our products even exceed these standards to ensure increased user safety and yet more exact dosage and exposure times.



Bodedex® forte

Surfactant cleaner - patented system

- strong cleaning power
- dissolves residues of x-ray contrast media
- dissolves biofilms
- high material compatibility

Areas of application

For self-acting removal of blood, protein, secretion, grease. The instrument cleaner also gently dissolves pertinacious residues of x-ray contrast media and biofilms. Suitable for rigid and flexible optics, intensive care and anesthesia materials as well as for surgery, ward, primary health care, dental and laboratory instruments.



Directions for use

cleaning:	0.5 % - 1.0 %
exposure time:	5 – 10 minutes
depending on exten	t of soiling

When filling the BODE X-Wipes dispenser with Bodedex forte, only use sterile filtered water

Disinfecting cleaning of instruments



- Anforderungen an die Hygiene bei der Aufbereitung von Medizinprodukten. Empfehlung der Kommission für Krankenhaushygiene und Infektionsprävention beim Robert Koch-Institut (RKI) und des Bundesinstitutes für Arzneimittel und Medizinprodukte (BfArM). Bundesgesundheitsbl 2012, 55:1244-1310
 Instrumenten-Aufbereitung. Instrumente werterhaltend aufbereiten. 10. Auflage, 2012
- 3 Fünf Jahre Empfehlungen der Kommission für Krankenhaushygiene zur Aufbereitung flexibler Endoskope. Bundesgesundheitsbl. 51 (2008): 211-220.
- 4 Kampf G, Fliss PM, Martiny H. Is peracetic acid suitable for the cleaning step of reprocessing flexible endoscopes? World J Gastrointest Endosc 2014; 6 (9):390-406.
- 5 For example the aldehyde-free instrument disinfectant Bomix plus based on quaternary ammonium compounds.

Contaminated instruments and endoscopes put healthcare personnel at risk and should be introduced to the cleaning process as quick as possible. Using a cleaning disinfectant - active against bacteria, fungi and enveloped viruses, e.g. HBV, HIV and HCV - can reduce the risk of infection during wet disposal or manual pre-cleaning.

Combinations with aldehydes should not be used for pre-cleaning as they fix proteins (1, 2, 3). The same applies to products based on peracetic acid (PAA) (1). Because PAA has a limited blood cleaning effect. And has a substantial blood and nerve tissue fixation potential (4).

An alternative are products based on quaternary ammonium compounds, which are - provided that no aldehyde is added compatible with all other active agents used in instrument disinfection today, independent of whether the instruments are reprocessed manually or automatically afterwards (5).



Bomix[®] plus

Immersion bath without precleaning.

- very economical by means of low use concentrations
- outstanding material compatibility
- compatible with disinfectants based on peracetic acid or aldehydes
- excellent cleaning power
- broad spectrum of effect
- pleasant smell

Active ingredient in 100 g

N,N-Didecyl-N-methyl-poly(oxyethyl)ammoniumpropionate 17.5 g.

Microbiological activity

Bactericidal, yeasticidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), rotavirus.

Areas of application

For cleaning and decontamination of heat-sensitive and heat-resistant instruments, in particular of flexible endoscopes, also with high protein burden. Suitable for manual reprocessing as well as for circulation processes. After the use of Bomix plus and an adequate rinsing, the compatibility with peracetic acid-based and aldehydbased products for high-level disinfection is given.

Directions for use

Aldehyde-free instrument disinfectant with high cleaning power under dirty conditions.

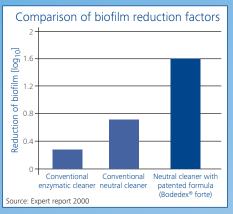


Proven efficacy

bactericidal EN 1	3727,
EN 14561	0.50% – 15 min
yeasticidal EN 13	624,
EN 14562	0.25 % – 15 min
virucidal against (incl. HBV, HIV, H	enveloped viruses ICV)
acc. DVV/RKI	0.50 % – 15 min
rotavirus acc. EN	14476
	0.50 % – 5 min

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Ridin Charles	222		
		And a state of the state	
BEST DESCRIPTION.			

Manual instrument cleaning: efficacy against biofilm



Efficacy of two ph-neutral cleaners and an enzymatic cleaner against *Pseudomonas aeruginosa* in biofilm. The patented neutral cleaner achieved the best results: a reduction factor (RF) of 1.6 log₁₀ at a temperature of 40 °C and with an exposure time of 5 minutes.

As only clean devices can be disinfected and sterilised effectively, cleaning is of particular importance when reprocessing medical devices. Combinations with aldehydes or products based on peracetic acid should not be used for pre-cleaning as they fix proteins (1, 2, 3). pH-neutral cleaners do not have a fixing effect and possess good material compatibility with heat-resistant and heat-sensitive instruments. Additionally, a comparative study testing two pH-neutral cleaners and an enzymatic cleaner for their efficacy against bacteria in biofilm could proof a high cleaning efficiency (4).

Biofilms are produced by bacteria that attach to a surface and form colonies. The resulting self-produced matrix is a slimy conglomeration of extracellular polymeric substance (EPS). The EPS makes bacteria extremely resistant, also to disinfectants. In practice, cleaners having a proven activity against biofilm are rated highly effective. In the study, the neutral cleaner with the patented formulation by far yielded the best results in inactivating the *Pseudomonas aeruginosa* population in the biofilm: the 1 per cent concentration achieved a reduction factor (RF) of 1.6 log₁₀ at a temperature of 40 °C within an exposure time of 5 minutes – a very effective cleaning result under practical conditions.

- 1 Anforderungen an die Hygiene bei der Aufbereitung von Medizinprodukten. Empfehlung der Kommission für Krankenhaushygiene und Infektionsprävention beim Robert Koch-Institut (RKI) und des Bundesinstitutes für Arzneimittel und Medizinprodukte (BfArM). Bundesgesundheitsbl - Gesundheitsforsch - Gesundheitsschutz, 2001, 44:1115–1126.
- 2 Arbeits Freis Instrumenten-Aufbereitung. Instrumenten-Aufbereitung richtig gemacht. 9. Ausgabe, 2009, 22-25.
- 3 Fünf Jahre Empfehlungen der Kommission für Krankenhaushygiene zur Aufbereitung flexibler Endoskope. Bundesgesundheitsbl.
- 51(2008): 211-220. 4 Gutachten zur Reinigungswirkung des Neutralreinigers Bodedex forte im manuellen Tauchverfahren gegenüber Biofilm von *Pseudomonas aeruginosa*. HSK, Dr. Horst-Schmidt-Kliniken GmbH, Hygiene- Institut, Wiesbaden, 29.06.2000.





Korsolex® basic

Aldehyde-based high-level instrument disinfectant.

- broad spectrum of effect incl. virucidal activity
- high material compatibility



Active ingredients in 100 g

Glutaral 15.2 g, (ethylenedioxy) dimethanol 19.7 g.

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, sporicidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum of virucidal activity, virucidal.

Areas of application

For reprocessing heat-sensitive and heatresistant instruments in the immersion bath procedure as well as for all common semiautomatic circulation processes. Standing time: 7 days.

Directions for use

Aldehyde-based high level instrument disinfectant under clean conditions.



Proven efficacy

bactericidal EN 137	27,
EN 14561	0.50 % – 15 min
yeasticidal EN 1362	24,
EN 14562	1.50 % – 15 min
mycobactericidal El	N 14348,
EN 14563	6.00 % – 15 min
virucidal against en (incl. HBV, HIV, HC\ acc. DVV/RKI	
limited spectrum of	f virucidal activity
EN 14476	1.00% – 15 min
virucidal EN 14476	2.00 % – 15 min

Korsolex® extra

Aldehyde-based high-level instrument disinfectant under clean conditions.

- broad spectrum of effect
- outstanding material compatibility
- economical use concentrations



Active ingredients in 100 g

(ethylenedioxy)dimethanol 15.3 g, glutaral 7.5 g, benzyl-C12-18-alkyldimethylammonium chlorides 1.0 g, didecyldimethylammonium chloride 1.0 g.

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, virucidal against enveloped viruses (incl. HBV, HIV, HCV), limited spectrum of virucidal activity, virucidal.

Areas of application

Due to its comprehensive material compatibility and spectrum of effect, Korsolex extra isused in hospitals and primary health care for all immersible instruments as well as for semiautomatic endoscope reprocessing. Standing time: 7 days.

Directions for use

Aldehyde-based instrument disinfectant under clean conditions.



Proven efficacy

	/
bactericidal EN EN 14561	13727, 0.75 % - 15 min
yeasticidal EN 1 EN 14562	3624, 0.75 % –15 min
mycobactericida EN 14563	al EN 14348, 5.00 % – 15 min
virucidal agains (incl. HBV, HIV, acc. DVV/RKI	,
	n of virucidal activity 1.00% – 15 min
virucidal EN 144	476 4.00 % – 15 min

Korsolex[®] PAA/ Korsolex[®] PAA Activator

Peracetic acid-based high level instrument disinfectant.



Proven efficacy

, conc. – 5 min
conc. – 5 min
4348, conc. – 5 min
conc. – 15 min
conc. – 15 min



• ready- and easy-to-use solution

based on peracetic acid

• sporicidal within 15 minutes

• virucidal within 15 minutes

aldehyde-free

Active ingredient in 100 g

The basic ready-to-use solution (freshly activated) contains 1200 ppm of peracetic acid, the concentration decreases during application and has to be checked regularly with the aid of Korsolex PAA Test. With a peracetic acid concentration of at least 900 ppm Korsolex PAA remains effective against the entire microbiological spectrum.

Microbiological activity

Bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, sporicidal, virucidal.

Areas of application

For the disinfection of flexible endoscopes, anesthesia materials and surgical instruments except tungsten steel instruments. Suitable for thermoplastics and elastomers.

Directions for use

Peracetic acid-based high level instrument disinfectant under clean conditions.

Accessories

100

1975512 C500 M BAN 197500 AND 3167 BRO34657



The availability of hand disinfectants is one basic requirement of hand disinfection. Key factors include the number of dispensers and their correct placement. Dispenser ensure the availability of hand disinfectants, their hygienic dispensing and correct application.

Proper dispenser placement increases compliance

Studies have shown that wide availability of hand disinfectants improves compliance (1). Minimum requirements for the proper availability are integral part of multi-modal intervention campaigns such as the WHO "Clean Care is Safer Care" campaign and its national implementation, for example by the German "AKTION Saubere Hände" hand hygiene campaign. The recommended minimum requirements are one dispenser per two patient beds in normal wards and one dispenser per patient bed in intensive care units. Beyond availability, it is important to consider the right location – for example right at the point of care – in order to improve hand hygiene compliance. Concequently, the dispenser locations should imperatively be linked to the "5 Moments of Hand Hygiene":

Dispenser positioning on the basis of the 5 Moments

Before patient contact

- right at the patient bed
- (between beds in shared rooms)on ward and dressing trolleys
- in front of patient rooms
 - (units at risk of infection)

Before an aseptic task

- right at the patient bed (between beds in shared rooms)
- in nursing stations
- in treatment rooms
- in laboratories

After body fluid exposure risk

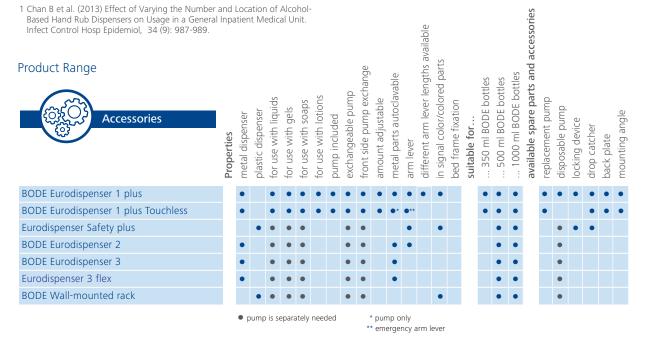
- right at the patient bed
- (between beds in shared rooms)
- on ward and dressing trolleys
- in patient rooms
- (next to the door)
- in treatment rooms

After patient contact

- right at the patient bed (between beds in shared rooms)
- in patient rooms (next to the door)
- in treatment rooms

After touching patient surroundings

- right at the patient bed (between beds in shared rooms)
- on ward and dressing trolleys



BODE Eurodispenser 1 plus

For the application of hand disinfectants, wash and skin care lotions.

- easy pump exchange by front removal
- reliable, robust metal dispenser
- easy installation even with limited space
- all standard bottles insertable
- simple and fast bottle exchange
- easy handling and cleaning
- dispenser and pump completely autoclavable
- application amount adjustable to approx. 0.75 to 1.5 ml per actuation
- available arm lever lengths for 350/500 ml dispenser: 160 and 215 mm for 1000 ml dispenser: 160 and 225 mm
- dispenser is available in signal colour reddelivery includes mounting parts,
- instruction sheet and manual



Eurodispenser 1 plus



Eurodispenser 1 plus signal colour red

BODE Eurodispenser 1 plus Touchless

Sensor-controlled dosing dispenser for hand disinfectants, wash and skin care lotions.



- touchless application
- easy pump exchange (removal from the front)
- long bottle life time due to low energy consumption
- reliable, robust metal dispenser
- easy installation even with limited space
- compatible with all standard bottles
- simple and fast bottle exchange
- easy handling and cleaning
- dosing amount adjustable (approx. 0.75 to 1.5 ml per actuation)
- delivery includes batteries, mounting parts, instruction sheet and manual



** not useable for Eurodispenser
 1 plus touchless



Eurodispenser Safety plus

Modern plastic dispenser for wall mounting for the use of hygienic single-use bottles and pumps with long nozzle, which makes time-consuming reprocessing obsolete.



- suitable for BODE standard bottles (500 ml and 1000 ml) with single-use pumps with long nozzle
- also suitable for many competitors' euro bottles
- reliable plastic dispenser with modern and slim design
- wide arm lever for easy and intuitive elbow/arm operation
- closed dispenser chassis, bottle is securely held in the dispenser
- integrated trick-lock to prevent product theft, without key (function not for all competitors' bottles given)
- integrated drip tray
- useable as table stand dispenser
- smooth surfaces and rounded edges for easy cleaning
- suitable for dishwasher cleaning
- easy and fast installation by either screwing or adhesive solution, same drill scheme as common Eurodispensers
- simple and fast bottle exchange
- delivery incl. mounting parts, instruction
 manual
- delivery without bottle and pump



Advantages of hygienic singleuse pumps with long nozzle at a glance:

- pump exchange with every bottle exchange prevents product contamination
- time consuming and complex reprocessing of pumps not necessary
- convenient product application thanks to long pump nozzle
- less product dripping and contamination of bottles thanks to long-nozzle pump
- products with single-use pumps also usable in wall holders or bed dispensers (Eurodispenser 2, Eurodispenser 3, Eurodispenser 3 flex, wall holders)

BODE Eurodispenser 2

For the application of hand disinfectants.



- suitable for 500 ml or 1000 ml BODE bottles
- robust metal construction
- simple, space saving installation
- dispenser autoclavable*
- integrated arm lever for hygienic product application
- replacement pumps and drop catcher available
- long-lasting
- easy handling and cleaning
- delivery without bottle and pump

* pump not autoclavable



Eurodispenser 3 flex

For the application of hand disinfectants at the point of care.



- reliable, robust wireframe dispenser made from stainless steel
- ensures multiple attaching options at the point of care
- clamp for flat and round surfaces
- can be positioned at the back, at two angled positions on the back and on the bottom
- can be turned 360°
- no clamp accessories needed for montage/removal
- suitable for 500ml and 1000ml BODE bottles
- autoclavable
- delivery without bottle and pump







BODE Eurodispenser 3

For the application of hand disinfectants, wash- and skin care lotions.

- suitable for 500 or 1000 ml BODE bottles
- robust metal construction
- with clip for attachment to bedframes (foot part)
- easy installation and handling
- autoclavable
- delivery without bottle and pump

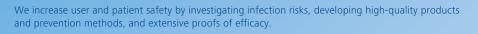




BODE Eurodispenser 3 with angled clip for 1000 ml BODE bottles



BODE Eurodispenser 3 with straight clip for 500 ml BODE bottles





BODE Wall-mounted Racks

For the application of hand disinfectants,

wash- and skin care lotions and Bacillol® Tissues container.



- suitable for 500 ml or 1000 ml BODE bottle or for Bacillol Tissues container
- made of solid, sturdy plastic
- simple installation and cleaning
- delivery includes mounting parts, instruction sheet
- easy to mount by screws or tapes on smooth surfaces
- delivery without bottle and pump
- not autoclavable





Hygiene Tower

Floor-standing column for hand disinfectant dispensers*



- for all areas where it is not possible or very difficult to install a wall dispenser, or where a dispenser is only needed temporarily
- suitable for Eurodispenser 1 plus, 1 plus touchless, Eurodispenser Safety plus
- robust and tilt-resistant design ensures a smooth and safe operation
 - easy to install due to existing drill holes
- powder-coated, smooth surfaces for easy cleaning
- thanks to the textured surface, slight disinfectant drip
- strains are virtually invisible premounted edge protection
- standard version with 4 rubber bumpers
- pre-drilled wholes for wheel installation
- leaflet holder and wheels separately available



Technical data

Overall height	140 cm
Foot	45.5 cm x 45.5 cm
Weight	15.3 kg

* BODE Eurodispenser 1 plus, BODE Eurodispenser 1 plus touchless, Eurodispenser Safety plus







BODE Pocket bottle holder

• suitable for 50 ml and 100 ml BODE pocket bottles



Aids for hand disinfectants, surface and instrument products



for the convenient product application from original BODE bottles



* also available for 1000 ml BODE bottles

Further aids

for the convenient product application



for 500/1000 ml BODE bottles

Measuring cup



X-Wipes Safety Pack





Bacillol tissues wall holder

BODE X-Wipes wall holder



Retaining clip for BODE X-Wipes wall holder





BODE Flow pack wall holder

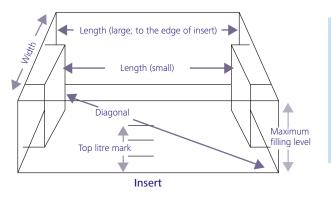
Disinfection baths

Accessories for instrument disinfection.



- for the preparation of disinfectantsolutions in all areas of hospitals, primary health care and laboratories
- user-friendly clear cover (5, 10, 30 litre baths)
- practical sieve insert made of white PVC
- molded handles
- available in different sizes
- replacement cover and sieve for all sizes available





Inner dimensions of BODE disinfection baths (All dimensions are approximate and in mm.)

Disinfection bath	3 litres	5 litres	10 litres	30 litres
Length to the edge of insert	250	465	327	540
Length to the handle recesses	192	393	257	460
Width	160	153	245	350
Diagonal	285	475	390	630
Maximum filling level (until edge)	88	100	140	190
Top litre mark	69	65	114	148

GlowCheck

Control tool for surfaces.



For the cleaning and disinfection of rooms and surfaces, employees are provided with in-structions such as cleaning and disinfection plans. These plans specify how and how often specific surfaces and furnishings need to be cleaned or disinfected.

GlowCheck is for monitoring cleaning and disinfection measures optically with UV light.

Components:

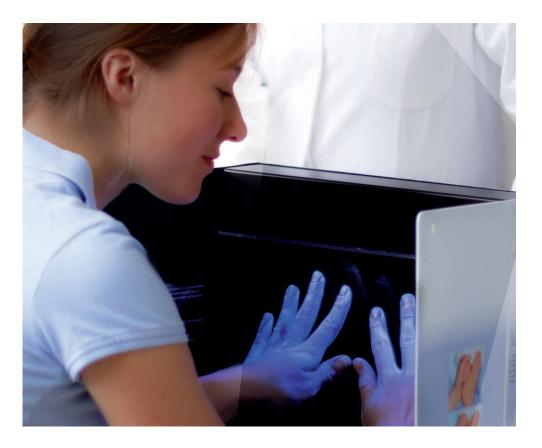
- special GlowCheck UV colour, pump spray, 30 ml
- special GlowCheck UV stamping ink, 30 ml
- GlowCheck pen
- automatic GlowCheck stamp "HYGIENE CHECK!"
- high-capacity 12 LED UV black light pocket lamp
- Bacillol AF, 50 ml bottle
- information folder



Training tools

Regular employee training is an essential tool for optimising compliance with hygiene. The fluorescence method helps raise the awareness of hygiene in an impressive way.

UV-light test kits for optically monitoring the quality of cleaning and disinfection measures.



Derma LiteCheck Box

Handy training tool for the fluorescence test with UV black light.

Visirub concentrate

Fluorescent concentrate to be combined with alcohol-based hand disinfectants for hand hygiene training.



Together with Visirub, a fluorescent concentrate, the Derma LiteCheck Box is an effective instrument for checking andmonitoring the correct rub-in technique of hand disinfection.

Size opened box:

35 cm x 35 cm x 29.4 cm Size closed box⁻

35 cm x 35 cm x 10.8 cm



10 ml of the Visirub concentrate contain enough fluorescence markers for 500 ml of the Sterillium disinfectant or a similar BODE hand disinfection product. Two tubes of Visirub should be used for 1000 ml containers.

Dermalux Box

Premium box in a robust housing.



The Dermalux Box has a very robust synthetic body and two integrated high-output fluorescent lamps. Thanks to its space-saving dimensions (W 42 cm, H 32 cm, D 28 cm) and its low weight (3.5 kg), the Dermalux Box is easily transportable and can be set up at training sessions rapidly both sitting and standing. The sturdy material guarantees a long durability of the box. The housing is easy to clean. However, solvent-based cleaners should not be used and all electrical components should not be cleaned with water.

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You can find your partners all over the world.

If you wish to know where your nearest partner is, visit the website: www.bode-chemie.com/partners



Notes

Notes

Quality through expert knowledge and decades of application expertise: based on our scientific know-how, own research projects and an international network, we develop optimised, economically attractive prevention measures.



Research for infection protection. www.bode-science-center.com

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