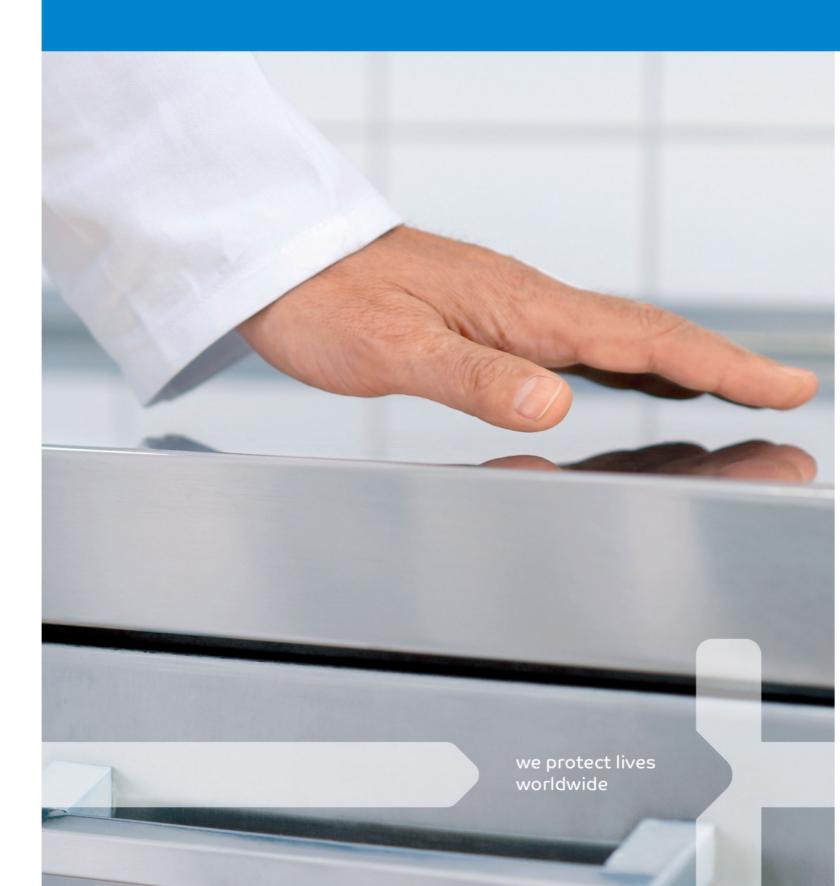
schülke -}

Schulke Surface Disinfection

Make hospital environment safe to touch



Our major plus - our total hygiene skills.





since 1889



schülke -}-

We protect lives worldwide.

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

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

Counter-measures deal more with treating the symptoms rather than fighting the causes.

Subsequently there are gaps appearing in the hygiene chain. We want to close these gaps with our integrated approach. We offer effective products, com-

petent advice and a broad range of services.

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

With all activities of our company we feel obliged to keep sustainability for a safe environment. Resource efficiency, environment protection and social responsibility during product developments are a main focus for schülke.

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

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

(Source: IMS Health Germany)



Hygiene has a name: schülke.

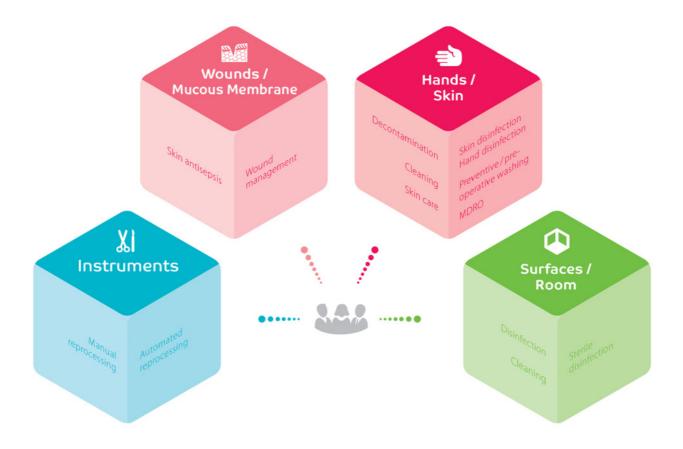
'The teaching of preventing disease and maintaining, promoting and stabilising health.'

The DGHM (German Society for Hygiene and Microbiology) defines hygiene. Our research, development and production, and constant quality assurance follow this idea.

We have developed numerous new processes and products, solving each microbiological challenge as it arose.

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

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



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

Easy, colourful identification.

Our information icons for fast identification.

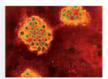
They show which pathogens, mode of action, and properties are essential for the individual products.

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



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

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





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

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





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

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





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

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





$\textbf{Bactericidal} \ (\text{symbol used in the area skin / hands, antiseptic, surfaces, sterile products, instruments)}$

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





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

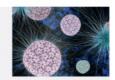
Limited Spectrum Of Virucidal Activity is the term applied to active agents or disinfectants which attack viruses (adeno, noro, rota) and/or their nucleic acids, excluding the so-called non-enveloped viruses, so strongly that they irreversibly damage or inactivate the pathogen. Active disinfectants with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





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

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





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

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



Clean surfaces. Clean work.

Comprehensive protection ensures a healthy environment.

The disinfection of critical areas represents a daily and decisive challenge in the routine of medical facilities.

In medical facilities, the daily and thorough disinfection of surfaces is a must – especially in critical and sensitive areas.

According to new medical findings, the thorough disinfection of surfaces within facilities is a significant factor in the containment of so-called nosocomial infections.

schülke products are developed with their area of usage in mind and their effectiveness is extensively

tested. From the early stages of development the selection of materials and active ingredients are focused upon creating a safe and user-friendly product.

These properties have made schülkes surface products to trusted partners within various areas of usage in daily clinical practice.

Disinfection and cleaning of hospital surfaces.

Maximal infection prevention is a must in all medicinal facilities and must comply with the highest requirements to keep patients and staff safe.

The reason is that microorganisms can survive a few months on items, making contamination through surfaces and other areas, such as by hand or skin contact, very likely.

To stop the transmission chain, an extensive disinfectant clean is a must!

Survivability of relevant pathogens on surfaces*

	Pseudomonas aeruginosa	up to 16 months						
Bacteria	Escherichia coli	up to 16 months						
	Staphylococcus aureus inclusing MDRO	up to 7 months						
bacteria	Clostridium difficle (spores)	up to 5 months						
	Mycobacterium tuberculosis	up to 4 months						
	Enterococcus spp. incl. VRE and VSE	up to 4 months						
Fungi	Candida albicans	up to 4 months						
	Vaccinia virus	up to 5 months						
	Adenovirus	up to 3 months						
Viruses	Norovirus	up to 7 days						
	HIV / HBV	up to 7 days						

Cleaning and disinfection of risky areas

Areas**	Without patient treatment Without infection risk	Risk of infection	High infection risk	Patients who have an agent inside of them, which could bring danger of spreading further	Infection risk for staff							
Examples	stair cases, hall ways, offices, management dining room teaching rooms technical areas	general ward, outpatient area • radiology • physical rooms • sanitary rooms • dialysis • maternity ward • intensive therapy	Operating theaters, Units for: • special intensive care (long-term ventilation <24hours, severe burns injured patients) • transplant • oncology (for patients under aggressive chemotherapy) • premature ward	Isolation area • functional areas in which the patient is being treated	microbiological laboratorys pathology disposal unclean areas like -laundry -functional units like for example CSSD							
schülke's recommendation cleaning / disinfection	at least cleaning	cleaning surface disinfection										

^{*} German Source: BMC Infectious Diseases 2006; 6:130: How long do nosocomial pathogens persist on inanimate surfaces? A systematic review. (A. Kramer, I. Schwebke, G. Kampf)

^{**} German Source: RKI recommendation – Hygiene requirements for cleaning and disinfecting surfaces, German Federal Health Gazette – Health Research – Health Protection 2004, 47:51-61

Professional rapid disinfection gives germs no chance.

Protect patients, prevent contamination.

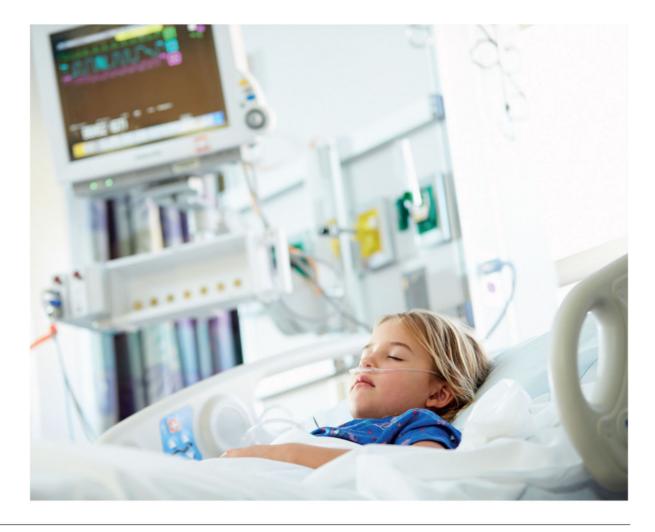
Surfaces that frequently come into contact with hands or skin present a high risk of transmission of infections. This includes in particular all surfaces in the patient's surroundings.

Studies* have shown that pathogens can survive several weeks or, in some cases, even months on surfaces causing a high risk of cross-contamination.

In the past, noscomial infections have increased to a worrying number. Surface disinfection is one of the most important preventive measures to stop contamination. This is applicable especially to all surfaces close to patients, which are part of the transmission chain.

Consequently, a number of surface disinfectants like sprays or disinfectant wipes have been developed for surfaces close to patients.

schülke ensures that these products have an excellent effectiveness and material compatibility, as well as application comfort, smell, and efficient cost-benefit relation.



Surface disinfection has a method!

Hospital surfaces like it sufficiently wet!

In practice, the wet wipe-method has proven useful.

In one-step mopping, the floor is being cleaned with a well wrung mop. This means that the area being disinfected may not have been moistened sufficiently and, after drying, residual disinfectant solution may remain on the floor. Optimum efficacy can only be achieved if the floor is sufficiently moistened.

The best method: the 2-step wet wipe-method

1. step:

apply the disinfectant solution with a well soaked mop, which softens and loosens adhesive contaminations. Within 2 – 5 minutes (detailed information can be found in the overview), the active agent of the disinfectant solution attaches to the bacteria and the remaining partially removed dirt.

2. step:

the excess disinfectant solution is removed with a second mop – and with it the bacteria. Any remaining moisture needs a maximum of 5 minutes to dry.

The 2-step wet wipe-method guarantees, that all surfaces are moistened enough so that the disinfectant can be very efficient. It makes sure that there is no layering. For these reasons this method is the one which is always chosen.

Don't spray if you can wipe!

It has been proven that disinfecting by wiping is more efficient and effective than spraying.

As spraying lacks the mechanical action of wiping. However one positive aspect of spraying is that uneven, contorted surfaces and/ or surfaces which are difficult to reach can still be disinfected. But if possible wipe the surfaces again, so that the product gets spread over the whole surface.

Criteria: spraying and wiping

A disinfection through wiping should always be favoured before spraying. (This has to be decided individually in every facility)

Spraying



- · contorted, uneven surfaces
- · ready to use
- · long shelf life



Wiping

- lower health risk for the staff (whilst wiping there is no dangerous aerosol formation, which the staff could breathe in)
- the whole surface gets disinfected
- whilst wiping a further mechanical way of getting rid of germs appears

Rapid surface disinfection











mikrozid® AF wipes | Jumbo |

Alcohol-based disinfectant wipes for fast disinfection of medical devices and other surfaces.

Our plus

- Rapid virucidal effect (Coronavirus 30 sec)
- Good antimicrobial efficacy (Enveloped viruses* incl. Coronavirus, HBV, HIV, HCV), bacteria incl. TB, yeasts))
- · Good material compatibility
- · Rapid surface disinfection, leaving no streaks
- · Color and perfume-free





Pack size

Carton with 10 x 220 wipes Jumbo





mikrozid® AF liquid

Alcohol-based rapid disinfectant for medical devices and other surfaces.

Our plus

- Rapid virucidal effect (Coronavirus 60 sec)
- Good antimicrobial efficacy (Enveloped viruses* incl. Coronavirus, HBV, HIV, HCV), bacteria incl. TB, yeasts))
- · Good material compatibility
- · Rapid surface disinfection, leaving no streaks
- · Color and perfume-free







Pack size

Carton with 10 x 1L bottles

mikrozid® sensitive wipes | Jumbo | premium

Alcohol-free disinfectant wipes for fast disinfection of medical devices and other surfaces.









Our plus

- · Rapid virucidal effect (Coronavirus 60 sec)
- · Good antimicrobial efficacy (Enveloped viruses* incl. Coronavirus, HBV, HIV, HCV), bacteria, yeasts))
- · Excellent material compatibility
- · Suitable usage on alcohol sensitive surfaces
- · Color and perfume-free





Pack size

Carton with 10 x 200 wipes Jumbo

Carton with 12 x 100 wipes premium





*in accordance to EN 14476

Rapid surface disinfection



mikrozid® sensitive liquid

Alcohol-free rapid disinfectant for medical devices and other surfaces.

Our plus

- · Rapid virucidal effect (Coronavirus 60 sec)
- Good antimicrobial efficacy (Enveloped viruses* incl. Coronavirus, HBV, HIV, HCV), bacteria, yeasts))
- · Excellent material compatibility
- · Suitable usage on alcohol sensitive surfaces
- · Color and perfume-free



Pack size

Carton with 10 x 1L bottles



mikrozid® universal wipes | liquid

Low alcohol-based disinfectant for medical devices and other surfaces.

Our plus

- Rapid virucidal effect (Coronavirus 15 sec)
- Good antimicrobial efficacy (Enveloped viruses* incl. Coronavirus, HBV, HIV, HCV),
- Excellent material compatibility incl. surfaces of electronic devices (e.g. tablet)
- · Color and perfume-free



Pack size

Carton with 10 x 1L bottles

Carton with 6 x 100 wipes premium

Large surface disinfection



terralin® protect

Powerful aldehyde-free large area cleaner and disinfectant, ideal for use on all surfaces of medical devices and other wipeable surfaces.

Our plus

- · Free of aldehydes and thus especially user-friendly
- · Smells nicely fresh
- Wide microbiological efficacy spectrum against bacteria (incl. Tb, MDRO), yeasts, enveloped viruses* (incl. HIV, HBV ,HCV), rota-, adeno- and noroviruses
- · Especially convenient for odour sensitive areas and sensitive materials

WAHE (HO)

Pack size

Carton with 5 x 2L bottles

*in accordance to EN 14476

mikrozid® a strong brand.



Su	rfaces	Applie	cation	Dos	sage Fo	rm	Listings						Antimicrobial Efficacies														
	rge surface disinfection pid disinfection	Cleaning	Disinfection	Ready-to-use	Wipes	Concentrate	Tested according to European Norms	WAH listing	(E) IHO virucidal list	RKI listed according §18lf5G	Alcohol-free	Perfume-free	Bactericidal	1B	levurocidal	fungicidal	wirucidal virucidal	Limited Spectrum of Virucidal Activity	enveloped viruses	Poliovirus	Adenovirus	Norovirus	Polyoma SV 40 virus	Rotavirus	Vaccinia virus	물을 sporidical	S. C. difficile
Large surface	terralin® protect	•	•			•	•	•	•				•	•	•	•	•		•		•	•	•	•	•		
	mikrozid® AF liquid	•	•	•			•	•	•			•	•	•	•	•		•	•		•	•	•	•	•		
ion	mikrozid® AF wipes Jumbo	•	•	•	•		•	•	•			•	•	•	•	•		•	•		•	•	•	•	•		
Rapid surface disinfection	mikrozid® sensitive liquid	•	•	•			•	•	•		•	•	•		•				•			•	•	•	•		
id surface	mikrozid® sensitive wipes Jumbo premium	•	•	•	•		•	•	•		•	•	•		•				•			•	•	•	•		
Rap	mikrozid® universal liquid	•	•	•			•	•	•			•	•	•	•			•	•		•	•	•	•	•		
	mikrozid® universal wipes premium	•	•	•	•		•	•	•			•	•	•	•			•	•		•	•	•	•	•		

For further recommendations on usage and contact times, please refer to website www.schuelke.com or approach relevant sales representative.

Rapid surface disinfection

mikrozid[®] wipes – quick overview of rapid disinfection. Safety on all surfaces.

An effective strategy for combating pathogenic microbes on surfaces calls for carefully selected products. schülke would like to assist you in this selection, and with its clear and fast disinfection concept, it offers a preselected range of suitable products. They are perfectly coordinated and leave no gaps within a multi-barrier system.

mikrozid® AF wipes

The classic choice among rapid disinfection preparations. The alcohol-based wipes are effective within 1 minute against almost all relevant microbes. The alcohol film dries very quickly and leaves no residue behind. Material compatibility is good, however stress cracks may form in plastics.



Active ingredients: Ethanol, Propan-1-ol

mikrozid® sensitive wipes

The specialist for sensitive surfaces. There are many sensitive materials in a hospital and for this reason, mikrozid® sensitive wipes combine a high degree of efficacy with excellent material compatibility. Even ultrasound heads* can be disinfected with mikrozid® sensitive wipes.



Active ingredients: Alkyl (C12-16) dimethylbenzyl ammonium chloride, Didecyldimethylammonium chloride, Alkyl(C12-14) ethylbenzylammonium chloride

mikrozid® universal wipes

The all-round wipes – also for disinfecting sensitive communication devices. Smartphones and tablets have nearly constant contact with hands. They can be safely treated with mikrozid® universal wipes without damage to the materials.



Active ingredients: Ethanol, Propan-2-ol



schülke worldwide:

Australia

Schulke Australia Pty Ltd Macquarie Park NSW 2113 Phone +61 2 8875 9300 +61 2 8875 9301

Schulke India Pvt. Ltd. New Delhi 110044 Phone +91 11 30796000 Fax +91 11 42595051

Poland

Schulke Polska Sp. z o.o. 02-305 Warszawa Phone +48 22 11 60 700 Fax +48 22 11 60 701

Austria

Schülke & Mayr Ges.m.b.H. 1070 Vienna Phone +43 1 523 25 01 0 +43 1 523 25 01 60

Italy Schülke & Mayr Italia S.r.l. 20158 Milano Phone +39 02 40 26 590 +39 02 40 26 609

Singapore

Schulke & Mayr (Asia) Pte. Ltd. Singapore 159410 Phone +65 62 57 23 88 +65 62 57 93 88

Brazil

Vic Pharma Indústria e Comércio Ltda. Taquaratinga/SP – CEP 15900-000 Phone +16 3253 8100 Fax +16 3253 8101

Japan

Schulke Japan LLC Shinagawa East One Tower 2-16-1 Konan, Minato-ku, Tokyo 108-0075 Phone +81 3 6894 3335 Fax +81 3 3453 0207

Slovakia

Schulke SK, s.r.o. 97101 Prievidza Phone +421 46 549 45 87 +420 558 320 261

Czech Republic

Schulke CZ, s.r.o. 73581 Bohumín Phone +420 558 320 260 +420 558 320 261

Netherlands

Schülke & Mayr Benelux B.V. 2031 CC Haarlem Phone +31 23 535 26 34 Fax +31 23 536 79 70

Switzerland

Schülke & Mayr AG 8003 Zurich Phone +41 44 466 55 44 Fax +41 44 466 55 33

Schülke France SARL 92250 La Garenne-Colombes

Phone +33 1 42 91 42 42 Fax +33 1 42 91 42 88

New Zealand

Schulke New Zealand Limited Auckland 1010 Phone +61 2 8875 9300 +61 2 8875 9301

United Kingdom

Schulke & Mayr UK Ltd. Sheffield S9 1AT Phone +44 114 254 35 00 Fax +44 114 254 35 01

... plus our international distributors

schülke -}

Schülke & Mayr (Asia) Pte Ltd

10 Jalan Kilang #04-01/02/03 Singapore 159410 Phone +65 6257 2388 Fax +65 6257 9388 mail.sg@schuelke.com





