

# ▶ Disinfectants





## Chapter 7

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Please refer to our website for the registration numbers of the biocidal products offered, which are subject to information.



## Reduction of microorganisms

by means of	Cleaning	Hygienisation	Disinfection	Sterilisation
<b>Definition</b>	Elimination of residues/dirt	Measures that go beyond cleaning	Put into a no-infectious state	Make it germ-free
<b>Claim</b>	Reduction of residues/dirt	does not claim to be germ-free	Ig reduction of bacteria / yeasts / fungi: 5 levels, viruses: 4 levels	Ig reduction <sup>1</sup> of microorganisms: 6 levels <sup>1</sup> decimal-logarithmic reduction
<b>Technology</b>	Ablation (elution) ▶ mechanical ▶ chemical ▶ thermal / physical	Killing (elimination) ▶ chemical ▶ thermal / physical in the so-called ice sanitation by cold + ozone (O <sub>3</sub> )	Killing (elimination) ▶ thermal / physical ▶ thermochemical ▶ chemical	Killing (elimination) ▶ thermal / physical ▶ chemical

## General information

In hygienic controlled areas, besides the cleaning of rooms and product contact/ no-product contact surfaces, an equal focus is placed on disinfection. Disinfection can be carried out in a variety of different ways.

We will concentrate the following pages essentially on the manual disinfection. If you may have questions about „automatized“ disinfection e.g. by means of dry fog, please ask us about it individually.

There are many manufacturers who, in their advertising, claim to be the right partner, in particular to have the right disinfection product for the area of use in question.

Some questions need to be clarified in advance in order to avoid „Nobody told me“ or „I didn't know“ afterwards. Are reliable and extensive documents available, as well as the necessary validation documents? Is product labelling in line with applicable law? Is sustainable sourcing ensured? Are the products used compatible with each other? Is the disinfectant available in sterile form? How long is the sterility of the product ensured after opening the packaging? Is the chosen disinfectant actually approved as such?

This is not only a question of having passed the EN standards suitability test, but also of proper registration as a biocide and authorisation according to Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.



The right choice of disinfectant is crucial to succeed in „putting dead or living materials“ in your production area „in such a condition that they can no longer infect“ (reference: Deutsches Arzneibuch – German Pharmacopoeia). It is important to observe specifications or rules which, on the one hand, allow for an efficient operation and, on the other hand, do not harm employees and materials.

In addition to the classic alcohol-based disinfectants, we offer a variety of biocides with other active ingredients. Our products are available either ready-to-use or as concentrates: they are available in spray bottles, canisters and round tins, and wet wipes in round tin dispensers or pouch bags.

If dry and sterile wipes are used with water-based disinfectants such as WFI, you should check whether these are also low in endotoxins or have been tested for endotoxins so as not to damage your product or process.



**When using disinfectant products, take into consideration that their residual quantities or rather their residues must be removed in regular intervals.**

**The use of low residue products can ensure that the follow-up treatment will require clearly less consumables and time. Thus the selective use of suitable products can reduce costs and the production process can be designed more efficient.**

Recognised international standards are e.g.:



## EN 13697:2019-10

### Bactericidal and/or fungicidal efficacy

Ig reduction by 4 levels (bactericidal)  
Ig reduction by 3 levels (fungicidal)

Chemical disinfectants and antiseptics – Quantitative no-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas – Test mandhod and requirements without mechanical action (phase 2, step 2)

## EN 13704:2018

### Sporicidal efficacy

Ig reduction by 3 levels

Chemical disinfectants – Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas – Test mandhod and requirements (phase 2, step 1)

## EN 1650:2019

### Fungicidal or yeasticidal efficacy

Ig reduction by 4 levels (fungicidal)  
Ig reduction by 4 levels (yeasticidal)

Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas – Test mandhod and requirements (phase 2, step 1)



**EN 1276:2019**

**Bactericidal efficacy**

Ig reduction by 5 levels

Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas – Test mandhod and requirements (phase 2, step 1)

**EN 14476:2013+A2:2019**

**Virucidal efficacy**

Ig reduction by 4 levels

Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of virucidal activity in the medical areas – Test mandhod and requirements (Phase 2 / Step 1)

**EN 16615:2015**

**Bactericidal and yeasticidal efficacy**

Ig reduction by 5 levels (bactericidal)

Ig reduction by 4 levels (yeasticidal)

Chemical disinfectants and antiseptics – Quantitative test mandhod for the evaluation of bactericidal and yeasticidal activity on no-porous surfaces with mechanical action employing wipes in the medical area (4-field test) – Test mandhod and requirements (phase 2, step 2)

# InSpec™

## Guide to surface contamination control

7.2

Product description	Manufacturer code	Art. No.	Colour code	Chemicals	Mixture
InSpec™ IPA 500ml Sterile Trigger Spray	IPAWFI-500MLS	8004013	Blue	Isopropanol (Propan-2-ol)	70 30 v/v 70% isopropanol mixed with 30% WFI
InSpec™ IPA 1L Sterile Trigger Spray	IPAWFI1-1LS	8004012			
InSpec™ IPA 5L Screw cap	IPAWFI1-5LS	8004014			
InSpec™ IPA 15 Pouch Wipes	IPAWFIPCH15S	8005010			
InSpec™ IPA 50 Pouch Wipes	IPAWFIPCH50S	8005011			
InSpec™ IPA Sterile Tub Wipes – 130 wipes / roll	IPAWFI12TB130S	8005012			
InSpec™ IPA Tub Wipes – 200 wipes / roll	IPAWFI12TB200S	8005013			
InSpec™ IPA Polyester 15 Wipes	IPAWFI15POL9	8005019			
InSpec™ IPA Polyester 20 Wipes	IPAWFI20POL12	8005027			
InSpec™ IPA Polyester 30 Wipes	IPAWFI30POL12	8005028			
InSpec™ IPA Sachet – Single Wipes	IPAWFICH1S	8005014			
InSpec™ DE 500ML Sterile Trigger Spray	DEWFI11-500MLS	8004032	Dark Blue	Ethanol, denatured by addition of isopropanol	70 30 v/v 70% andhanol mixed with 30% WFI
InSpec™ DE 1L Sterile Trigger Spray	DEWFI10-1LS	8004030			
InSpec™ DE 5L	DEWFI10-5LS	8004031			
InSpec™ DE 15 Pouch Wipes	DEWFIPCH15S	8005030			
InSpec™ DE 50 Pouch Wipes	DEWFIPCH50S	8005031			
InSpec™ DE Sterile Tub Wipes – 130 wipes / roll	DEWFI12TB130S	8005032			
InSpec™ DE Sterile Tub Wipes – 200 wipes / roll	DEWFI12TB200S	8005033	Red	Sporicidal mixture of hydrogen peroxide and peracetic acid	6% hydrogen peroxid / 0.4% peracetic acid mixed with PW
InSpec™ OX 1L Sterile Trigger Spray	XPW40-1LS	8004020			
InSpec™ OX 5L Screw Cap	XPW40-5LS	8004021			
InSpec™ OX Burstable Pouch – 15 Wipes	XPW40BP15S	8005020			
InSpec™ OX Burstable Mop – 2 Sterile Mops	XPWWMOP2S	8005021	Green	Quaternary ammonium compound	4% quaternary ammonium compound mixed with WFI
InSpec™ QT 900MLS Sterile Trigger Spray	QTWFI30-1LS	8004051			
InSpec™ QT 5L	QTWFI30-5LS	8004062			
InSpec™ QT Concentrate	QTCNC30-100	8004050			
InSpec™ QT Burstable Pouch – 15 Wipes	QTWFI30BP15S	8005050			
InSpec™ QT Burstable Mop – 2 Sterile Mops	QTFWIMOP2S	8005051			
InSpec™ QT+ Sterile 1L Trigger RTU	QTPLWFI31-900MLS	8004061			
InSpec™ QT+ Sterile 5L RTU	QTPLWFI31-5LS	8004062			
InSpec™ QT+ Sterile Concentrate 102ml	QTPLCNC-102	8004060			
InSpec™ QT+ Burstable Wipes – 15 Wipes	QTPLWFI31BP15S	8005060	Orange	Diamine with water	4% diamine mixed with WFI
InSpec™ AN 900MLS Sterile	ANWFI20-1LS	8004071			
InSpec™ AN 5L Screw Cap	ANWFI20-5LS	8004072			
InSpec™ AN Concentrate	ANCNC20-100	8004070			
InSpec™ AN Burstable Pouch – 15 Wipes	ANWFI20BP15S	8005070			
InSpec™ AN Burstable Mop – 2 Sterile Mops	ANWFIMOP2S	8005071	Purple	Sporicidal mixture made of hypochlorous acid	7% hypochlorous acid mixed with PW
InSpec™ HA 1L Sterile Trigger Spray	HAPW50-1LS	8004040			
InSpec™ HA 5L	HAPW50-5LS	8004041			
InSpec™ HA Burstable Wipes – 15 Wipes	HAPW50BP15S	8005040			
InSpec™ HA Burstable Mop – 2 Sterile Mops	HAPWMOP2S	8005041			

n. s.= not specified

RTU = ready to use

WFI = water for injection

PW = purified water

Filtered (0.2 µm)	Bag in bottle	Screw cap	Wipe/ Mop cover	Sterile	Gamma- irradiated in case of wipes	Aseptically treated	Shelf life from date of manufacture	Recommended shelf life after opening
✓	✓			✓			2 years	3 months
✓	✓			✓			2 years	3 months
✓		✓		✓			2 years	10 hours
✓			✓	✓			2 years	10 hours
✓			✓	✓			2 years	10 hours
✓			✓	✓			2 years	n. s.
✓			✓	✓			2 years	n. s.
✓			✓	✓			2 years	10 hours
✓			✓	✓			2 years	10 hours
✓			✓	✓			2 years	10 hours
✓	✓			✓			2 years	2 hours
✓	✓			✓			2 years	3 months
✓	✓			✓			2 years	3 months
✓		✓		✓			2 years	10 hours
✓			✓	✓			2 years	10 hours
✓			✓	✓			2 years	10 hours
✓			✓	✓			2 years	n. s.
✓			✓	✓			2 years	n. s.
✓	✓			✓		✓	2 years	3 months
✓		✓		✓		✓	2 years	10 hours
✓			✓	✓		✓	2 years	10 hours
✓			✓	✓		✓	2 years	2 hours
✓			✓	✓		✓	2 years	2 hours
✓	✓			✓	✓		2 years	3 months
✓		✓		✓	✓		2 years	10 hours
✓			✓	✓	✓		2 years	10 hours
✓			✓	✓	✓		2 years	2 hours
✓			✓	✓	✓		2 years	2 hours
✓	✓			✓	✓		2 years	3 months
✓		✓		✓	✓		2 years	10 hours
✓			✓	✓	✓		2 years	10 hours
✓			✓	✓	✓		2 years	2 hours
✓	✓			✓	✓		2 years	3 months
✓		✓		✓	✓		2 years	10 hours
✓			✓	✓	✓		2 years	10 hours
✓			✓	✓	✓		2 years	2 hours
✓	✓			✓	✓	✓	1 year	3 months
✓		✓		✓	✓	✓	1 year	10 hours
✓			✓	✓	✓	✓	1 year	2 hours
✓			✓	✓	✓	✓	1 year	2 hours

Corresponding  
no-sterile versions  
available!

Manufacturer's data





## Product characteristics

- ▶ chemical disinfectants prepared in different mixing ratios with DI-/WFI-water or with purified water (PW)
- ▶ all mixtures are pre-filtered to 0.2 µm and filled under cleanroom conditions
- ▶ the sterilisation usually takes place from 25 kGy up to 45 kGy
- ▶ 0.5/1 l spray bottles with proven bag-in-bottle system and membrane valve trigger spray head for contamination-free use
- ▶ 360 ml aerosol cans and 5-litre canisters with screw cap
- ▶ all products are foil-packed several times under cleanroom conditions for safe transfer
- ▶ comprehensive documentation and certificates
- ▶ saturated wipes and mop wipes in different sizes and designs (see chapter 7.5)

## InSpec™ IPA

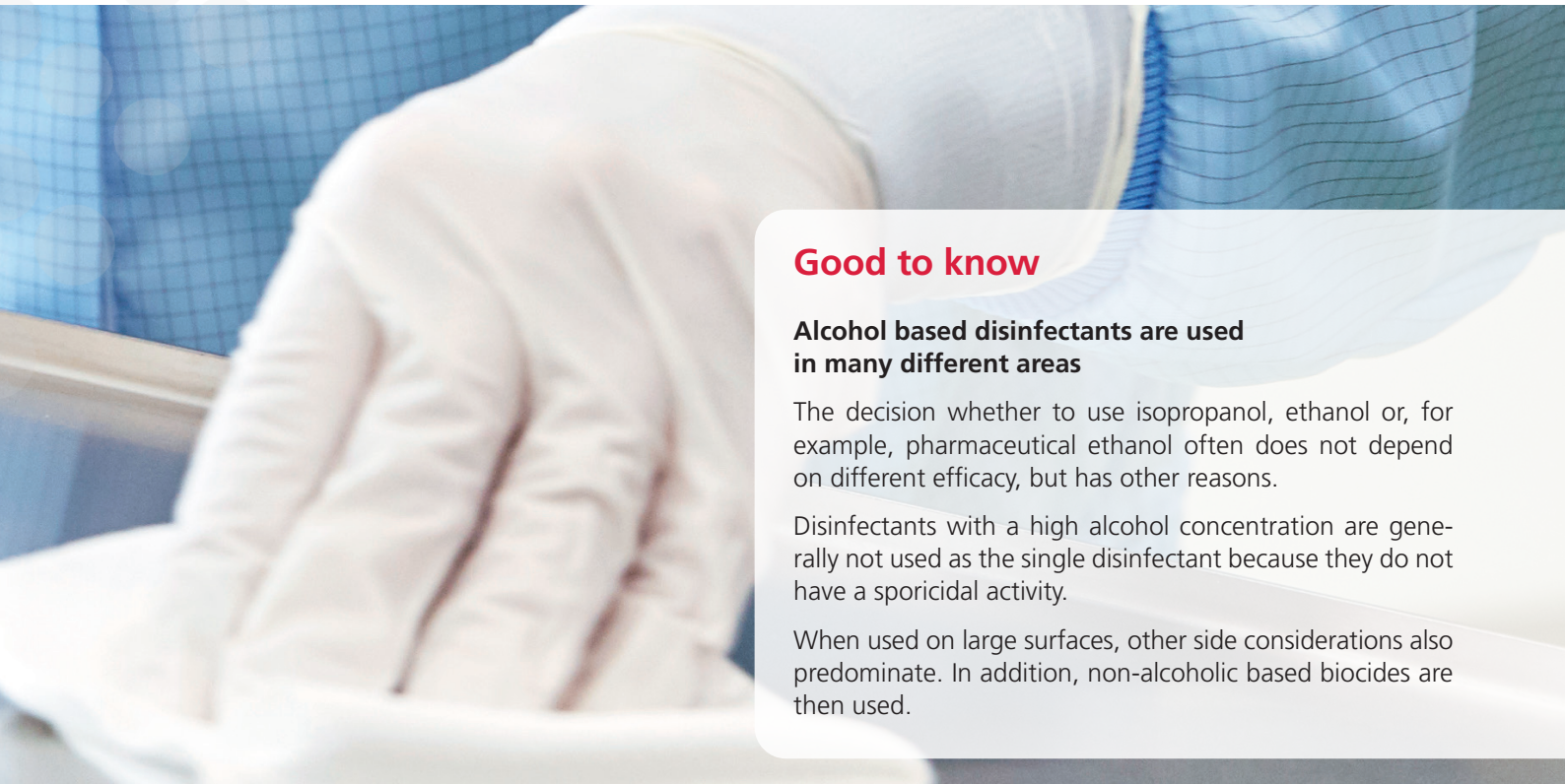
### InSpec™ IPA Sterile and Non-Sterile

70% isopropanol (propan-2-ol) blended with 30% Water for Injection (WFI)



Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI	yes	500 ml	8	IPAWFI-500MLS	8004013
Spray bottle, WFI	yes	1 L	6	IPAWFI-1LS	8004012
Canister with screw cap, WFI	yes	5 L	2	IPAWFI-5LS	8004014
Spray bottle, WFI	no	500 ml	8	NSIPAWFI-500ML	8004003
Spray bottle, WFI	no	1 L	6	NSIPAWFI-1L	8004004
Canister with screw cap, WFI	no	5 L	2	NSIPAWFI-5L	8004002

- ▶ EN 1276 Bacteria
- ▶ EN 13697 Bacteria and fungi
- ▶ EN 1650 Fungi or yeasts



### Good to know

#### Alcohol based disinfectants are used in many different areas

The decision whether to use isopropanol, ethanol or, for example, pharmaceutical ethanol often does not depend on different efficacy, but has other reasons.

Disinfectants with a high alcohol concentration are generally not used as the single disinfectant because they do not have a sporicidal activity.

When used on large surfaces, other side considerations also predominate. In addition, non-alcoholic based biocides are then used.

## InSpec™ DE



### InSpec™ DE Sterile and Non-Sterile

70% ethanol denatured with isopropanol blended with 30% Water for Injection (WFI)

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI	yes	500 ml	8	DEWFI11-500MLS	8004032
Spray bottle, WFI	yes	1 L	6	DEWFI10-1LS	8004030
Canister with screw cap, WFI	yes	5 L	2	DEWFI10-5LS	8004031
Spray bottle, WFI	no	500 ml	8	NSDEWFI-500ML	8004035
Spray bottle, WFI	no	1 L	6	NSDEWFI-1L	8004033
Canister with screw cap, WFI	no	5 L	2	NSDEWFI-5L	8004034

- ▶ EN 1276 Bacteria
- ▶ EN 13697 Bacteria and fungi
- ▶ EN 1650 Fungi or yeasts



## InSpec™ IPA



You will find appropriate holders for mop covers and mop wipes in chapter 6!

Picture: Klinikum Chemnitz gGmbH, central pharmacy

### InSpec™ IPA – 70% isopropanol (propan-2-ol) blended with 30% Water for Injection (WFI)

Description	sterile	Size/mm	PU	Manufacturer code	Art. No.
<b>InSpec™ IPA 15 Pouch Wipes</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	yes	230 x 230	25 pouches of 15 wipes	IPAWFIPCH15S	8005010
<b>InSpec™ IPA 50 Pouch Wipes</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	yes	230 x 230	16 pouches of 50 wipes	IPAWFIPCH50S	8005011
<b>InSpec™ IPA Sterile Tub Wipes</b> Saturated wipes, Viscose, 45 g/m <sup>2</sup>	yes	200 x 185	12 tube boxes of 130 wipes/roll	IPAWFI2TB130S	8005012
<b>InSpec™ IPA Tub Wipes</b> Saturated wipes, PES/CEL, 23 g/m <sup>2</sup>	yes	200 x 200	12 tube boxes of 200 wipes/roll	IPAWFI12TB200S	8005013
<b>InSpec™ IPA Sachet</b> Saturated wipes, PES / CEL, 55 g/m <sup>2</sup>	yes	190 x 160	10 x 50 single sachets	IPAWFICH1S	8005014
<b>InSpec™ IPA 15 Pouch Wipes Non-Sterile</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	no	230 x 230	25 pouches of 15 wipes	NSIPAWFIPCH15	8005015
<b>InSpec™ IPA 50 Pouch Wipes Non-Sterile</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	no	230 x 230	16 pouches of 50 wipes	NSIPAWFIPCH50	8005016
<b>InSpec™ IPA Tub Wipes Non-Sterile</b> Saturated wipes, PES/CEL, 23 g/m <sup>2</sup>	no	200 x 200	12 tube boxes of 200 wipes/roll	NSIPAWFI12TB200	8005017
<b>InSpec™ IPA Polyester 15 Wipes</b> Saturated wipes, knitted PES, 132 g/m <sup>2</sup>	yes	230 x 230	25 pouches of 15 wipes	IPAWFI15POL9	8005019
<b>InSpec™ IPA Polyester 20 Wipes</b> Saturated wipes, knitted PES, 132 g/m <sup>2</sup>	yes	300 x 300	10 pouches of 20 wipes	IPAWFI20POL12	8005027
<b>InSpec™ IPA Polyester 30 Wipes</b> Saturated wipes, knitted PES, 132 g/m <sup>2</sup>	yes	300 x 300	10 pouches of 30 wipes	IPAWFI30POL12	8005028

\* alcohol = propan-2-ol    PES = Polyester    CEL = Cellulose    PP = Polypropylene

# InSpec™ DE



## InSpec™ DE – 70% denatured ethanol blended with 30% Water for Injection (WFI)

Description	sterile	Size/mm	PU	Manufacturer code	Art. No.
<b>InSpec™ DE 15 Pouch Wipes</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	yes	230 x 230	25 pouches of 15 wipes	DEWFIPCH15S	8005030
<b>InSpec™ DE 50 Pouch Wipes</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	yes	230 x 230	16 pouches of 50 wipes	DEWFIPCH50S	8005031
<b>InSpec™ DE Sterile Tub Wipes</b> Saturated wipes, viscose, 45 g/m <sup>2</sup>	yes	200 x 185	12 tube boxes of 130 wipes/roll	DEWFI12TB130S	8005032
<b>InSpec™ DE Tub Wipes</b> Saturated wipes, PES/CEL, 23 g/m <sup>2</sup>	yes	200 x 200	12 tube boxes of 200 wipes/roll	DEWFI12TB200S	8005033
<b>InSpec™ DE 15 Pouch Wipes Non-Sterile</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	no	230 x 230	25 pouches of 15 wipes	NSDEWFIPCH15	8005036
<b>InSpec™ DE 50 Pouch Wipes Non-Sterile</b> Saturated wipes, PES/CEL, 68 g/m <sup>2</sup>	no	230 x 230	16 pouches of 50 wipes	NSDEWFIPCH50	8005037
<b>InSpec™ DE Tub Wipes Non-Sterile</b> Saturated wipes, PES/CEL, 23 g/m <sup>2</sup>	no	200 x 200	12 tube boxes of 200 wipes/roll	NSDEWFI12TB200	8005035



DISINFECTANTS

### Product characteristics of alcohol saturated wipes and mop wipes

- ▶ low-particle, ready-to-use cleaning wipes, non-woven fabrics made of polyester (PES) and cellulose (CEL) or knitted from polyester, saturated with a blend of isopropanol (IPA) or denatured ethanol (DE) with water in WFI/PW quality
- ▶ sterile cleanroom wipes are sterilised by gamma irradiation in a validated process (at least 25 – 45 kGy)
- ▶ different, resealable dispenser units as bags or tube boxes
- ▶ pouch packaging can be easily opened and closed with gloves
- ▶ different sizes for different applications
- ▶ wipes are supplied with appropriate documentation (certificate of analysis, irradiation, sterility, endotoxin content)
- ▶ unique batch numbering for improved quality of traceability
- ▶ all packaging types have a minimum shelf life of 24 months from the date of manufacture



# Disinfectants on basis of non-alcoholic ingredients

## What are biocides?

Biocides are single agents or mixtures of agents designed to render innocuous or kill harmful organisms (bacteria, viruses, spores, fungi or yeasts). Biocides should meet various mandatory standards in order to be used in cleanrooms (efficacy and approval).

**Use biocide products carefully!**  
**Read always the label, product information and safety data sheet before use.**

Always wear suitable gloves, goggles or face protection and appropriate clothing.

Observe the following criteria: specific task, duration of the disinfection session, cleaning utensils, surface texture, ventilation system, physical sensitivities of the users, etc.

**We will be pleased to advise you!**

## InSpec™ QT

**InSpec™ QT Sterile and Non-Sterile, Concentrate, Burstable Wipes, Burstable Mops**  
 4% quaternary ammonium compound with Water for Injection (WFI)

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI <sup>1</sup>	yes	900 ml	6	QTWFI30-1LS	8004051
Canister with screw cap, WFI	yes	5 L	2	QTWFI30-5LS	8004052
Flask with screw cap concentrate	yes	100 ml	50	QTCNC30-100	8004050
Spray bottle, WFI <sup>1</sup>	no	900 ml	6	NSQTWFI-1L	8004054
Canister with screw cap, WFI	no	5 L	2	NSQTWFI-5L	8004055
Flask with screw cap concentrate	no	100 ml	50	NSQTCONC-100ML	8004053

- ▶ EN 1276 Bacteria
- ▶ EN 13697 Bacteria and fungi
- ▶ EN 1650 Fungi or yeasts

### Burstable Wipes and Burstable Mops

2-component pouches	sterile	Size /mm	PU	Manufacturer code	Art. No.
<b>Wipes<sup>2</sup></b> PES/CEL, 68 g/m <sup>2</sup> + solution	yes	230 x 230	20 pouches of 15 wipes	QTWFI30BP15S	8005050
<b>Mop covers<sup>3</sup></b> PES 52 g/m <sup>2</sup> + solution	yes	400 x 125	10 pouches of 2 mop covers	QTWFI MOP2S	8005051
<b>Mop covers<sup>3</sup></b> PES 52 g/m <sup>2</sup> + solution	no	400 x 125	10 pouches of 2 mop covers	2116007	8005052



InSpec™ QT, as a non-oxidizing biocide, is an ideal rotational disinfection partner for InSpec™ AN, HA or OX.



The majority of the products listed here are available immediately!



## Product characteristics

- ▶ sterile biocides are filtered at 0.2 µm and either gamma irradiated with at least 25 kGy or aseptically filled according to a validated method
- ▶ available in different sizes/units
- ▶ each packed several times in a bag in a cleanroom
- ▶ different variants, ready-to-use solutions and concentrates, this product range is supplemented by saturated wipes and mop covers

## InSpec™ QT+

### InSpec™ QT+ Sterile and Non-Sterile, Concentrate, Burstable Wipes

Quaternary ammonium compound with complexing agents and Water for Injection (WFI)

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI <sup>1</sup>	yes	900 ml	6	QTPLWFI31-900MLS	8004061
Canister with screw cap, WFI	yes	5 L	2	QTPLWFI31-5LS	8004062
Flask with screw cap concentrate	yes	102 ml	50	QTPLCNC31-102	8004060
Spray bottle, WFI <sup>1</sup>	no	900 ml	6	NSQTPLWFI-1L	8004064
Canister with screw cap, WFI	no	5 L	2	NSQTPLWFI-5L	8004065
Flask with screw cap concentrate	no	102 ml	50	NSQTPLCNC-102	8004063

- ▶ EN 1276 Bacteria
- ▶ EN 13697 Bacteria and fungi
- ▶ EN 1650 Fungi or yeasts

### Burstable Wipes

2-component pouches	sterile	Size /mm	PU	Manufacturer code	Art. No.
Wipes <sup>2</sup> PES/CEL, 68 g/m <sup>2</sup> + solution	yes	230 x 230	20 pouches of 15 wipes	QTPLWFI31BP15S	8005060

InSpec™ QT+, as a non-oxidizing biocide, is an ideal rotational disinfection partner for InSpec™ AN, HA or OX

<sup>1</sup> due to process, the 1-liter bottle contains 900 ml solution

<sup>2</sup> wipes: 195 ml ready-to-use solution for saturating the wipes

<sup>3</sup> mop covers: weight/piece: 52 g +/- 10%, colour: white, 390 ml ready-to-use solution for saturating both mop covers



DISINFECTANTS

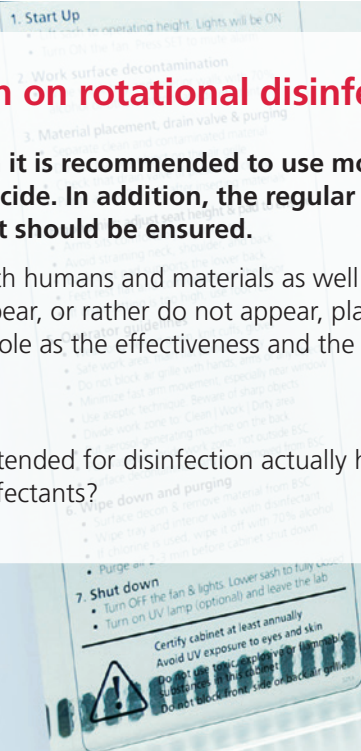
## Information on rotational disinfection

For disinfection it is recommended to use more than one type of biocide. In addition, the regular use of a sporicidal agent should be ensured.

Compatibility with humans and materials as well as the residues that appear, or rather do not appear, play an equally decisive role as the effectiveness and the duration of exposure.

### Not to forget:

Do the agents intended for disinfection actually have an approval as disinfectants?



## InSpec™ AN

**InSpec™ AN Sterile and Non-Sterile, Concentrate, Burstable Wipes, Burstable Mops**  
4% diamine with Water for Injection (WFI)

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI <sup>1</sup>	yes	900 ml	6	ANWFI20-1LS	8004071
Canister with screw cap, WFI	yes	5 L	2	ANWFI20-5LS	8004072
Flask with screw cap concentrate	yes	100 ml	50	ANCNC20-100	8004070
Spray bottle, WFI <sup>1</sup>	no	900 ml	6	NSANWFI-1L	8004074
Canister with screw cap, WFI	no	5 L	2	NSANWFI-5L	8004075
Flask with screw cap concentrate	no	100 ml	50	NSANCONC-100ML	8004073

- ▶ EN 1276 Bacteria
- ▶ EN 13697 Bacteria and fungi
- ▶ EN 1650 Fungi or yeasts

<sup>1</sup> due to process, the 1-liter bottle contains 900 ml solution





### Burstable Wipes and Burstable Mops

2-component pouches	sterile	Size/mm	PU	Manufacturer code	Art. No.
<b>Wipes<sup>2</sup></b> PES/CEL, 68 g/m <sup>2</sup> + solution	yes	230 x 230	20 pouches of 15 wipes	ANWFI20BP15S	8005070
<b>Mop covers<sup>3</sup></b> PES 52 g/m <sup>2</sup> + solution	yes	400 x 125	10 pouches of 2 mop covers	ANWFIMOP2S	8005071

2 wipes: 195 ml ready-to-use solution for saturating the wipes

3 mop covers: weight/piece: 52 g +/- 10%, colour: white, 390 ml ready-to-use solution for saturating both mop covers

**InSpec™ AN, as a non-oxidizing biocide, is an ideal rotational disinfection partner for InSpec™ QT, HA or OX.**





## What are biocides with sporicidal activity?

**Sporicides kill bacteria and fungal spores, vegetative microorganisms and viruses**

As chemical oxidants, they react with critical systems in microbial cells, causing rapid destruction.

It is important that a sporicide is also used as part of the cleaning rotation, as spores can often remain intact under unfavourable conditions and are not affected by the usual cleaning routine with a biocidal disinfectant.



## InSpec™ OX

**InSpec™ OX Sterile and Non-Sterile, Burstable Wipes, Burstable Mops**  
Sporicidal Preparation Hydrogen Peroxide 6% v/v and Peracetic Acid 0.4% v/v with purified water (PW)

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle	yes	1 L	6	OXPW40-1LS	8004020
Canister with screw cap	yes	5 L	2	OXPW40-5LS	8004021
Spray bottle	no	1 L	6	NSOXPW-1L	8004022
Canister with screw cap	no	5 L	2	NSOXPW-5L	8004023

### Burstable Wipes and Burstable Mops

2-component pouches	sterile	Size /mm	PU	Manufacturer code	Art. No.
<b>Wipes<sup>2</sup></b> PES/CEL, 68 g/m <sup>2</sup> + solution	yes	230 x 230	20 pouches of 15 wipes	OXPW40BP15S	8005020
<b>Mop covers<sup>3</sup></b> PES 52 g/m <sup>2</sup> + solution	yes	400 x 125	10 pouches of 2 mop covers	OXPWMOP2S	8005021

<sup>2</sup> wipes: 195 ml ready-to-use solution for saturating the wipes

<sup>3</sup> mop covers: weight/piece: 52 g +/- 10%, colour: white, 390 ml ready-to-use solution for saturating both mop covers



- ▶ EN 1276 Bacteria
- ▶ EN 13697 Bacteria and fungi
- ▶ EN 1650 Fungi or yeasts

**InSpec™ OX, as an oxidizing sporicide, is an ideal rotational partner for InSpec™ QT or AN.**



## InSpec™ HA

**InSpec™ HA Sterile and Non-Sterile, Burstable Wipes, Burstable Mops**  
 Sporicidal Preparation of Hypochlorous Acid ( $\text{HClO} \rightleftharpoons \text{OCI}^- + \text{H}^+$ )  
 with purified water (PW)

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle	yes	1 L	6	HAPW50-1LS	8004040
Canister with screw cap	yes	5 L	2	HAPW50-5LS	8004041
Spray bottle	no	1 L	6	NSHAPW-1L	8004042
Canister with screw cap	no	5 L	2	NSHAPW-5L	8004043



### Burstable Wipes and Burstable Mops

2-component pouches	sterile	Size /mm	PU	Manufacturer code	Art. No.
<b>Wipes<sup>2</sup></b> PES/CEL, 68 g/m <sup>2</sup> + solution	yes	230 x 230	20 pouches of 15 wipes	HAPW50BP15S	8005040
<b>Mop covers<sup>3</sup></b> PES 52 g/m <sup>2</sup> + solution	yes	400 x 125	10 pouches of 2 mop covers	HAPWMOP2S	8005041

<sup>2</sup> wipes: 195 ml ready-to-use solution for saturating the wipes

<sup>3</sup> mop covers: weight/piece: 52 g +/- 10%, colour: white, 390 ml ready-to-use solution for saturating both mop covers

► EN 13704 Spores

**InSpec™ HA, as an oxidizing sporicide, is an ideal rotational partner for InSpec™ QT or AN.**

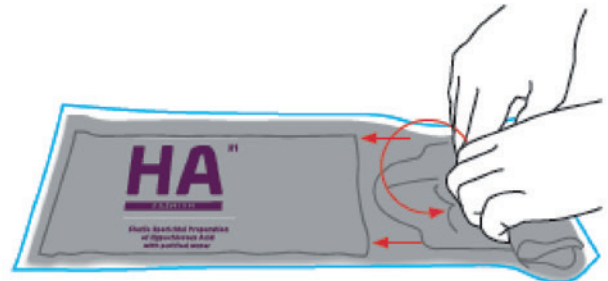
# InSpec® 2-component pouches (burstable) Instructions for application preparation

7.7

## Saturated cleaning wipes



- 1 Put the 2-component pouch on a hard steady horizontal surface (label face up).



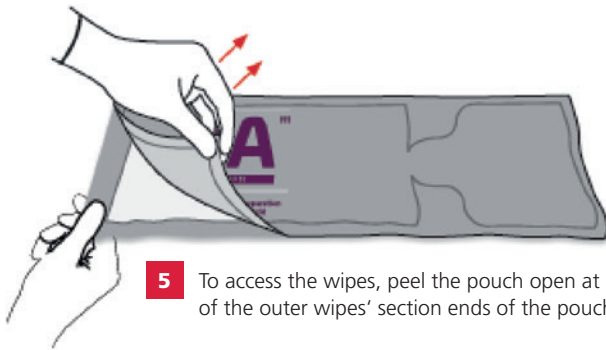
- 2 With outer packaging still in place, roll the pouch from the liquid section outer edge and apply pressure to force liquid across the burstable barrier to saturate the wipes.



- 3 Flatten the liquid sections to ensure the preparation is transferred to the wipes section.



- 4 Wait for 1 minute, then remove the transparent outer bag and access the wipes.



- 5 To access the wipes, peel the pouch open at one of the outer wipes' section ends of the pouch.



- 6 Use within one cycle (max. 10 hours), cover if necessary.

### Safe application!

Always wear suitable gloves, goggles or face protection and an appropriate clothing.

Always read the label and the safety data sheet before use.

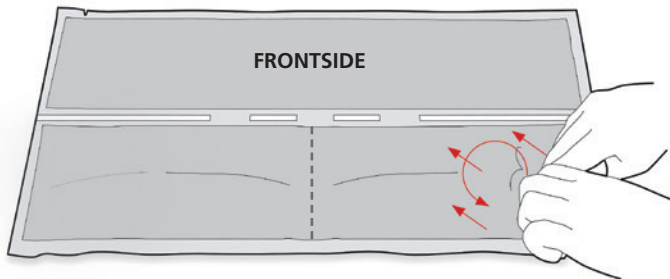
2-component pouches with wipes (15 pieces) have two, those with mop covers (2 pieces) have three inner sections, 195 ml, i.e. 390 ml ready-to-use solution.

This innovative dosage form guarantees wiping and product efficacy over the entire shelf life (12 to 24 months).

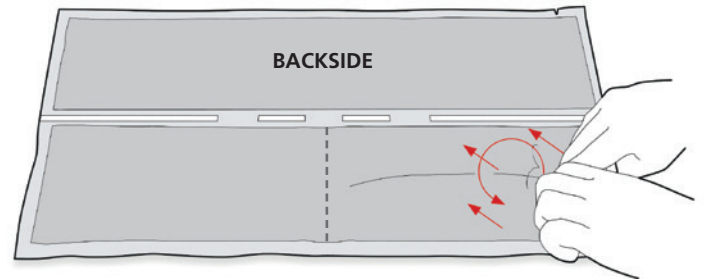
Until the time of use, the wipes and mop covers are sterile.

The product should be used within a normal cleanroom working time (wipes max. 10 hrs./mop covers max. 2 hrs.).

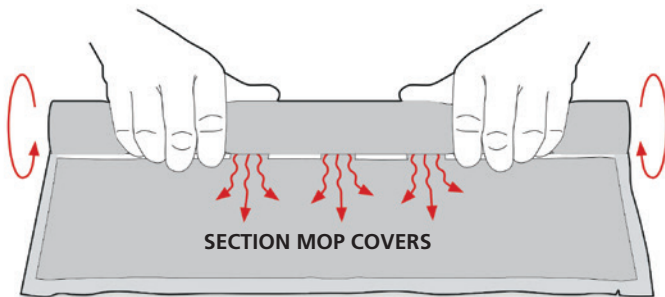
## Saturated mop covers



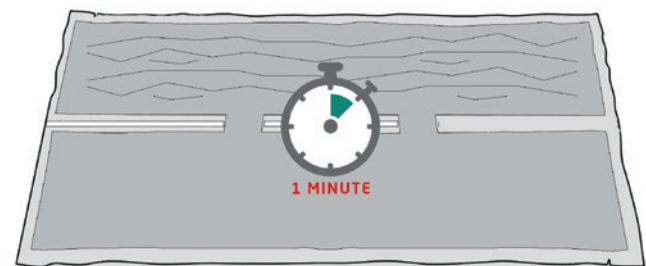
- 1** Place the 2-component pouch on a flat surface and roll up the right liquid section, then hold it firmly with one hand and press it with the other hand downwards, around the inner pouch section 1 to make it bursts open. Press out the content completely.



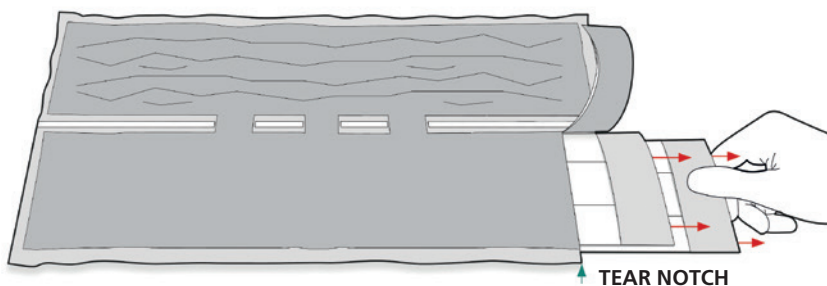
- 2** Turn the pouch upside down – the back is facing you – and roll up the remaining right-hand fluid section. Hold it with one hand and press it with the other hand downwards, so that the inner pouch section 2 bursts open. Press out the content completely.



- 3** To ensure maximum flow of the biocide to the mop cover side, roll and compress the liquid side of the pouch to force all the liquid into the section with the mop covers.

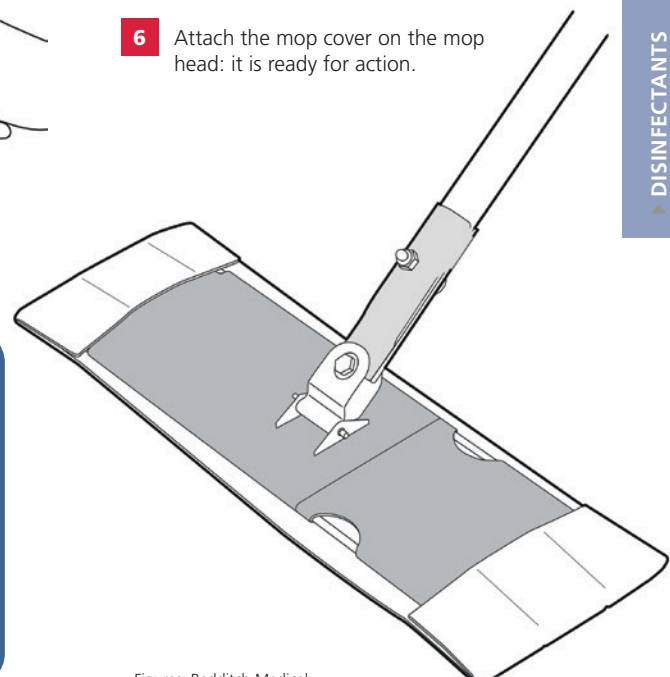


- 4** Leave flat for one minute so that the biocide can completely saturate the two mop covers.



- 5** Open the section with the mop covers using the tear notch to pull them out. Use them within a maximum of 2 hours.

- 6** Attach the mop cover on the mop head: it is ready for action.



Any combination of biocidal or sporicidal ready-to-use solutions is an ideal partner for rotational disinfection.

InSpec™ Burstable Pouches are manufactured according to GMP in an ISO 14644-1 Class 6 cleanroom. The products are filled and sealed in an ISO 14644-1 Class 5 environment.

Each pouch is delivered in two separate, fully sealed, flexible PE pouches for aseptic cleanroom transfer.

Figures: Redditch Medical

## Manual cleaning and disinfection



Necessary and useful additional products can be, on the one hand, facilities and solutions to thoroughly clean surfaces and rooms before disinfection or, on the other hand, to remove after disinfection the used residues of the biocides.

These can be wipes and other aids with which products are not only cleaned and disinfected but also maintained.

Sterile neutral cleaning agents are available for this purpose in different variants. Sterile water in WFI quality completes the range. In addition to the sterile floor and surface wipes and mop covers saturated with a cleaning agent, wipes saturated with silicone and alcohol are also available for special applications.

For use in non-sterile, hygienically controlled areas, there are also products that offer both in one: effective disinfection combined with simultaneous surface cleaning.

### InSpec™ N7

**InSpec™ N7 Sterile and Non-Sterile, Concentrate, Pre-impregnated Pouch Wipes**  
Ready-to-use mixture as 4% pH-neutral manual detergent agent with surfactants and complexing agents and Water for Injections (WFI)

pH neutral cleaning solution



Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI	yes	1 L	6	N7WFI1CC-1LS	500074
Canister with screw cap, WFI	yes	5 L	2	N7WFI1-5LS	500075
Flask with screw cap concentrate (for 2,5 L water)	yes	100 ml	50	N7WFI1-100MLS	500076
Spray bottle, WFI	no	1 L	6	NSN7WFI1CC-1L	500070
Canister with screw cap, WFI	no	5 L	2	NSN7WFI1-5L	500071
Flask with screw cap concentrate (for 2,5 L water)	no	100 ml	50	NSN7CONC-100ML	500072

#### Pre-impregnated Pouch Wipes

Pouches	sterile	Size/mm	PU	Manufacturer code	Art. No.
Saturated wipes PES/CEL, 68 g/m <sup>2</sup>	yes	230 x 230	25 pouches of 15 wipes	N7WFI1PCH15S	500077



## InSpec™ N10

### InSpec™ N10 Sterile and Non-Sterile, Concentrate, Burstable Mops Pre-diluted (4% detergent to WFI)

Alkaline detergent and hard surface cleaner for use in the biopharmaceutical and cleanroom industries



DISINFECTANTS

Type of container	sterile	Content	PU	Manufacturer code	Art. No.
Spray bottle, WFI <sup>1</sup>	yes	900 ml	6	N10WFI1CC-1LS	500064
Canister with screw cap, WFI	yes	5 L	2	N10WFI1-5LS	500066
Flask with screw cap concentrate (for 2.5 L of water)	yes	100 ml	50	N10WFI1-100MLS	500067
Spray bottle, WFI	no	900 ml	6	NSN10WFI-1L	500060
Canister with screw cap, WFI	no	5 L	2	NSN10WFI-5L	500062
Flask with screw cap concentrate	no	1 L	6	NSN10CONC-1L	500061
Flask with screw cap concentrate (for 2.5 L of water)	no	100 ml	50	NSN10CONC-100ML	500063

#### Burstable Mops

2-component pouches	sterile	Size/mm	PU	Manufacturer code	Art. No.
Mop covers <sup>3</sup> PES 52 g/m <sup>2</sup> + solution	yes	400 x 125	10 pouches of 2 mop covers	N10WFMOP2S	500068

<sup>3</sup> 3 mop covers: weight/piece: 52 g +/- 10%, colour: white, 390 ml ready-to-use solution for saturating both mop covers

# Product recommendations for hygiene areas according to GMP

Description		Hygiene zones (microbiological controlled areas) according to GMP				
		A	B	C	D	E
BIOCIDES ALCOHOL BASED	InSpec™ IPA 1L/ 500ml Sterile Trigger Spray	■	■			
	InSpec™ IPA 5L Screw cap	■	■			
	InSpec™ IPA Pouch 15 Wipes / 50 Wipes	■	■			
	InSpec™ IPA Tub Wipes / Sterile Tub Wipes	■	■			
	InSpec™ IPA Polyester Wipes 15 / 20 / 30	■	■			
	InSpec™ IPA Sachet – Single Wipes	■	■			
	InSpec™ IPA 1L/ 500ml Trigger Spray Non-Sterile			■	■	■
	InSpec™ IPA 5L Screw cap Non-Sterile			■	■	■
	InSpec™ IPA Pouch 15 Wipes / 50 Wipes Non-Sterile			■	■	■
	InSpec™ IPA Tub Wipes Non-Sterile			■	■	■
BIOCIDES ALCOHOL BASED	InSpec™ DE 1L/ 500ml Sterile Trigger Spray	■	■			
	InSpec™ DE 5L Screw cap	■	■			
	InSpec™ DE Pouch 15 Wipes / 50 Wipes	■	■			
	InSpec™ DE Tub Wipes/ Sterile Tub Wipes	■	■			
	InSpec™ DE Burstable Mop – 2 Sterile Impregnated Mops	■	■			
	InSpec™ DE 1L/ 500ml Trigger Spray Non-Sterile			■	■	■
	InSpec™ DE 5L Screw cap Non-Sterile			■	■	■
	InSpec™ DE Pouch 15 Wipes / 50 Wipes Non-Sterile			■	■	■
InSpec™ DE Tub Wipes Non-Sterile			■	■	■	
BIOCIDES	InSpec™ AN 900MLS Sterile Trigger Spray	■	■			
	InSpec™ AN 5L Screw cap	■	■			
	InSpec™ AN 100ML Concentrate	■	■			
	InSpec™ AN Burstable Pouch 15 Wipes	■	■			
	InSpec™ AN Burstable Mop – 2 Sterile Mops	■	■			
	InSpec™ AN 900MLS Trigger Spray Non-Sterile			■	■	■
	InSpec™ AN 5L Screw cap Non-Sterile			■	■	■
	InSpec™ AN 100ML Concentrate Non-Sterile			■	■	■
BIOCIDES	InSpec™ QT 900MLS Sterile Trigger Spray	■	■			
	InSpec™ QT 5L Screw cap	■	■			
	InSpec™ QT 100ML Concentrate	■	■			
	InSpec™ QT Burstable Pouch 15 Wipes	■	■			
	InSpec™ QT Burstable Mop – 2 Sterile Mops	■	■			
	InSpec™ QT 900MLS Trigger Spray Non-Sterile			■	■	■
	InSpec™ QT 5L Screw cap Non-Sterile			■	■	■
	InSpec™ QT 100ML Concentrate Non-Sterile			■	■	■

Description		Hygiene zones (microbiological controlled areas) according to GMP				
		A	B	C	D	E
BIOCIDES	InSpec™ QT+ 1L Sterile Trigger Spray	■	■			
	InSpec™ QT+ 5L Screw cap	■	■			
	InSpec™ QT+ 102ML Concentrate	■	■			
	InSpec™ QT+ Burstable Pouch 15 Wipes	■	■			
	InSpec™ QT+ 1L Trigger Spray Non-Sterile			■	■	■
	InSpec™ QT+ 5L Screw cap Non-Sterile			■	■	■
	InSpec™ QT+ 102ML Concentrate Non-Sterile			■	■	■
BIOCIDES SPORICIDAL ACTIVITY	InSpec™ OX 1L Sterile Trigger Spray	■	■			
	InSpec™ OX 5L Screw cap	■	■			
	InSpec™ OX Burstable Pouch 15 Wipes	■	■			
	InSpec™ OX Burstable Mop – 2 Sterile Mops	■	■			
	InSpec™ OX 1L Trigger Spray Non-Sterile			■	■	■
	InSpec™ OX 5L Screw cap Non-Sterile			■	■	■
BIOCIDES SPORICIDAL ACTIVITY	InSpec™ HA 1L Sterile Trigger Spray	■	■			
	InSpec™ HA 5L Screw cap	■	■			
	InSpec™ HA Burstable Pouch 15 Wipes	■	■			
	InSpec™ HA Burstable Mop – 2 Sterile Mops	■	■			
	InSpec™ HA 1L Trigger Spray Non-Sterile			■	■	■
	InSpec™ HA 5L Screw cap Non-Sterile			■	■	■
MANUAL CLEANING AND DISINFECTION	InSpec™ N7 1L Sterile Trigger Spray	■	■			
	InSpec™ N7 5L Screw cap	■	■			
	InSpec™ N7 100 ML Concentrate	■	■			
	InSpec™ N7 Pouch 15 Wipes / 50 Wipes	■	■			
	InSpec™ N7 1L Trigger Spray Non-Sterile			■	■	■
	InSpec™ N7 5L Screw cap Non-Sterile			■	■	■
	InSpec™ N7 100ML Concentrate Non-Sterile			■	■	■
	InSpec™ N10 900MLS Sterile Trigger Spray	■	■			
	InSpec™ N10 5L Screw cap	■	■			
	InSpec™ N10 100ML Concentrate	■	■			
	InSpec™ N10 Burstable Pouch Mop – 2 Sterile Mops	■	■			
	InSpec™ N10 900MLS Trigger Spray Non-Sterile			■	■	■
	InSpec™ N10 5L Screw cap Non-Sterile			■	■	■
	InSpec™ N10 100ML Concentrate Non-Sterile			■	■	■
	InSpec™ N10 1L Concentrate Non-Sterile			■	■	■
HAND HYGIENE	Sterillium® classic pure			■	■	■
	Sterillium® Gel pure			■	■	■
	Baktolin® pure			■	■	■
	Baktolan® protect+ pure			■	■	■
	Baktolan® lotion pure			■	■	■
	InSpec™ NS HG Gel			■	■	■







Appropriate dispenser you will find in chapter 11!



## Cleaning, disinfection, protection and care

It is not only surfaces or products that need to be cleaned and disinfected. The same applies to hands. However, it is important here not to skimp on protection and care. We have listed a few products for you as examples. All of them are free of dyes and perfumes and therefore have a particularly good skin tolerance.

All components of the hand hygiene system have not only been evaluated individually, but also some of them, selected at random, have been scientifically tested for their mutual compatibility:

For example, the Bactolan® protection and care products do not affect the Sterillium® disinfectant products, even when used just before hand disinfection. This complete programme helps to keep your hands healthy for a long time.

### Cleaning: Baktolin® pure

Hand washing lotion, colourless and fragrance-free, and therefore especially suitable for sensitive skin. Alkali- and soap-free.

### Disinfection: Sterillium® classic pure

The classic hand disinfectant as a dye- and perfume-free version.

Efficacy spectrum: bactericidal, yeasticidal, mycobactericidal, limited virucidal, adeno-, polyoma- and rotavirus. Note: VAH listed (Association for Applied Hygiene, Bonn).

### Protection: Baktolan® protect+ pure

Protective emulsion against aqueous solutions and regenerating care combined in one product. Free of perfume, dye and silicone.

### Care: Baktolan® lotion pure

Moisturizing and quickly absorbent hand care for sensitive skin. Fragrance-free.

*Also available as gel!*



Description	sterile	Content	PU	Manufacturer code	Art. No.
<b>Sterillium® classic pure Hand disinfectant</b>	no	100 ml	45 bottles	9803890	808400100-01
		500 ml	20 bottles	9803900	808400100-02
		1 L	10 bottles	9803910	808400100-03
		5 L	1 canister	9803920	808400100
<b>Sterillium® Gel pure Hand disinfectant</b>	no	100 ml	45 bottles	9814510	808400101-01
		475 ml	20 bottles	9814520	808400101-02
		1 L	10 bottles	9814530	808400101
<b>Baktolin® pure Washing lotion</b>	no	500 ml	20 bottles	9813281	808400302
		1 L	10 bottles	9813291	808400301
		5 L	1 canister	981330	808400300
<b>Baktolan® protect+ pure Skin protection</b>	no	100 ml	25 tubes	9811371	808400201
		350 ml	20 bottles	9811822	808400201
<b>Baktolan® lotion pure Hand care</b>	no	350 ml	20 bottles	9802533	808400205



You will find appropriate dispensers in chapter 11!