

# zeta hygiene



**FEEL SAFE**

Hygiene solutions

**Zhermack**   
Dental



Zeta Hygiene,  
feel safe

The background of the entire page is a light blue water splash with many small bubbles. The splash is more prominent at the top and bottom edges, with a white background in the center where the text is located.

# Cleaning, disinfection and sterilisation to protect dentists clinics and technicians laboratories against infection.

Just following the right procedure is not enough to ensure adequate protection against cross-infection between patients and personnel. Dental professionals also need **safe, effective** and **broad spectrum** products.

**Rapid action, practicality** and **high compatibility** with dental clinic materials make Zeta Hygiene products ideal for demanding dental professionals and guarantee a high level of safety and protection for users and patients alike.

Zeta Hygiene is a complete range of cleaning, disinfecting and sterilising products, free from toxic substances like phenols and aldehydes and formulated for high

compatibility with clinic and laboratory surfaces. These innovative products are manufactured to the strictest quality standards and tested to ensure conformity to the latest European regulations.

Zeta Hygiene products deliver **effective solutions** for maintaining a **high level of protection**.

Zhermack always has your safety in mind.

# Hygiene solutions



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Zhermack



# Instruments and burs



# Zeta 1 Ultra



## Instruments and burs

A concentrated, broad spectrum, liquid disinfectant and cleaner. Suitable for ordinary, surgical dental instruments and burs.

**Active ingredients:** alkylamine and quaternary ammonium salts.

**2% DILUTION** for a wide disinfection

**1% DILUTION** for a rapid disinfection

Refer to the spectrum of action indicated below.



## PRODUCT BENEFITS

- ▶ High protection: broad spectrum of action.
- ▶ Effective even in the presence of organic contaminants.
- ▶ High efficiency concentrated formula.
- ▶ Safe to use: free from aldehydes and phenols.
- ▶ Easy to use: short time of action and easy dosage thanks to the dosing bottle with dispenser.

## Use

**2% dilution (wide disinfection):** add 20 ml of product to every litre of solution. Immerse the instruments in a static bath for 60 minutes or in an ultrasonic bath for 30 minutes at 35°C.

**1% dilution (rapid disinfection, with limited spectrum of action: Bactericidal, Yeasticidal, Limited virucidal):** add 10 ml of Zeta 1 Ultra to every litre of solution. Immerse the instruments in a static bath for 15 minutes.

**DEPENDING ON THE CONCENTRATION USED, EVERY LITRE OF ZETA 1 ULTRA GIVES 100 OR 50 LITRES OF DISINFECTANT SOLUTION.**

## Spectrum



### 2% DILUTION (WIDE DISINFECTION)\*

#### STATIC BATH:

**Bactericidal:** EN 13727, EN 14561 (S. aureus, P. aeruginosa, E. hirae)

**Yeasticidal:** EN 13624, EN 14562 (C. albicans)

**Bactericidal, Yeasticidal (15'): VAH**

**Mycobactericidal, including Tuberculocidal:** EN 14348, EN 14563 (M. terrae, M. avium)

**Virucidal:** EN 14476 (Poliovirus, Adenovirus, Norovirus, including HIV, HBV, HCV, Ebola, Herpes simplex and all human and animal influenza viruses)

#### ULTRASONIC BATH:

**Bactericidal, Yeasticidal, Fungicidal, Mycobactericidal incl. Tuberculocidal, Virucidal**

### 1% DILUTION (RAPID DISINFECTION)\*

#### STATIC BATH:

**Bactericidal:** EN 13727, EN 14561 (S. aureus, P. aeruginosa, E. hirae)

**Yeasticidal:** EN 13624, EN 14562 (C. albicans)

**Limited virucidal:** HIV, HBV, HCV, Ebola, Herpes simplex and all human and animal influenza viruses (DVV/RKI, prEN 16777)

**Mycobactericidal including Tuberculocidal (60'): VAH**

\*Tests carried out in dirty conditions.



# Zeta 2 Enzyme



## Instruments and burs

A broad spectrum, tri-enzymatic, powder disinfectant and cleaner. A specific treatment for ordinary, surgical and rotary instruments prior to sterilisation.

**Active ingredients:** active oxygen, enzymes.

**2% DILUTION**



## PRODUCT BENEFITS

- ▶ High protection just in 10 minutes: bactericidal, yeasticidal, mycobactericidal, tuberculocidal and virucidal.
- ▶ Deep cleaning of burs and instruments micro-structures.
- ▶ Powerful cleaner action thanks to the enzymes amylase, protease, lipase.
- ▶ Safe to use: free from aldehydes and phenols.

## Use

**2% dilution:** add 20 g (2 spoons) of **Zeta 2 Enzyme** to every litre of water (35°C) and stir to dissolve the powder. Wait for 15 minutes. Immerse the instruments for 10 minutes. Once prepared, the solution appears cloudy because of the presence of the enzymes, but remains stable for at least 8 hours. The presence of undissolved powder on the bottom guarantees the effectiveness of the solution for its active life according to the instructions.

**ONE TUB OF ZETA 2 ENZYME GIVES 60 LITRES OF DISINFECTANT SOLUTION.**

## Spectrum



**Bactericidal:** EN 13727, EN 14561 (S. aureus, P. aeruginosa, E. hirae)

**Yeasticidal:** EN 13624, EN 14562 (C. albicans)

**Mycobactericidal and tuberculocidal:** EN 14348, EN 14563 (M. terrae, M. avium)

**Virucidal:** EN 14476 (Poliovirus, Adenovirus, Norovirus including HIV, HBV, HCV)

*Tests carried out in dirty conditions.*

# Zeta 2 Sporex



## Instruments and burs

Cold chemical sterilizer and high level disinfectant in powder. Specific for dental instruments and particularly recommended for medical devices that cannot be sterilized in an autoclave.

**Active ingredients:** peracetic acid.

**2% DILUTION**



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, mycobactericidal, tuberculocidal, virucidal and sporicidal.
- ▶ Cold chemical sterilisation in just 10 minutes.
- ▶ Safe to use: free from aldehydes; peracetic acid is generated on site, avoiding the risks due to the use of free peracetic acid.

## Use

**2% dilution:** add 20 g (3 spoons) of **Zeta 2 Sporex** to every litre of water and stir to dissolve the powder. Leave the solution to active for 15 minutes. Immerse the instruments for 10 minutes.

The presence of undissolved powder on the bottom guarantees the effectiveness of the solution for its active life according to the instructions. Once prepared, the solution remains stable for at least 24 hours, but should be replaced at the start of each working day.

**ONE TUB OF ZETA 2 SPOREX GIVES 45 LITRES OF STERILISING SOLUTION.**

## Spectrum



**Bactericidal:** EN 13727, EN 14561 (*S. aureus*, *P. aeruginosa*, *E. hirae*)

**Yeasticidal:** EN 13624, EN 14562 (*C. albicans*)

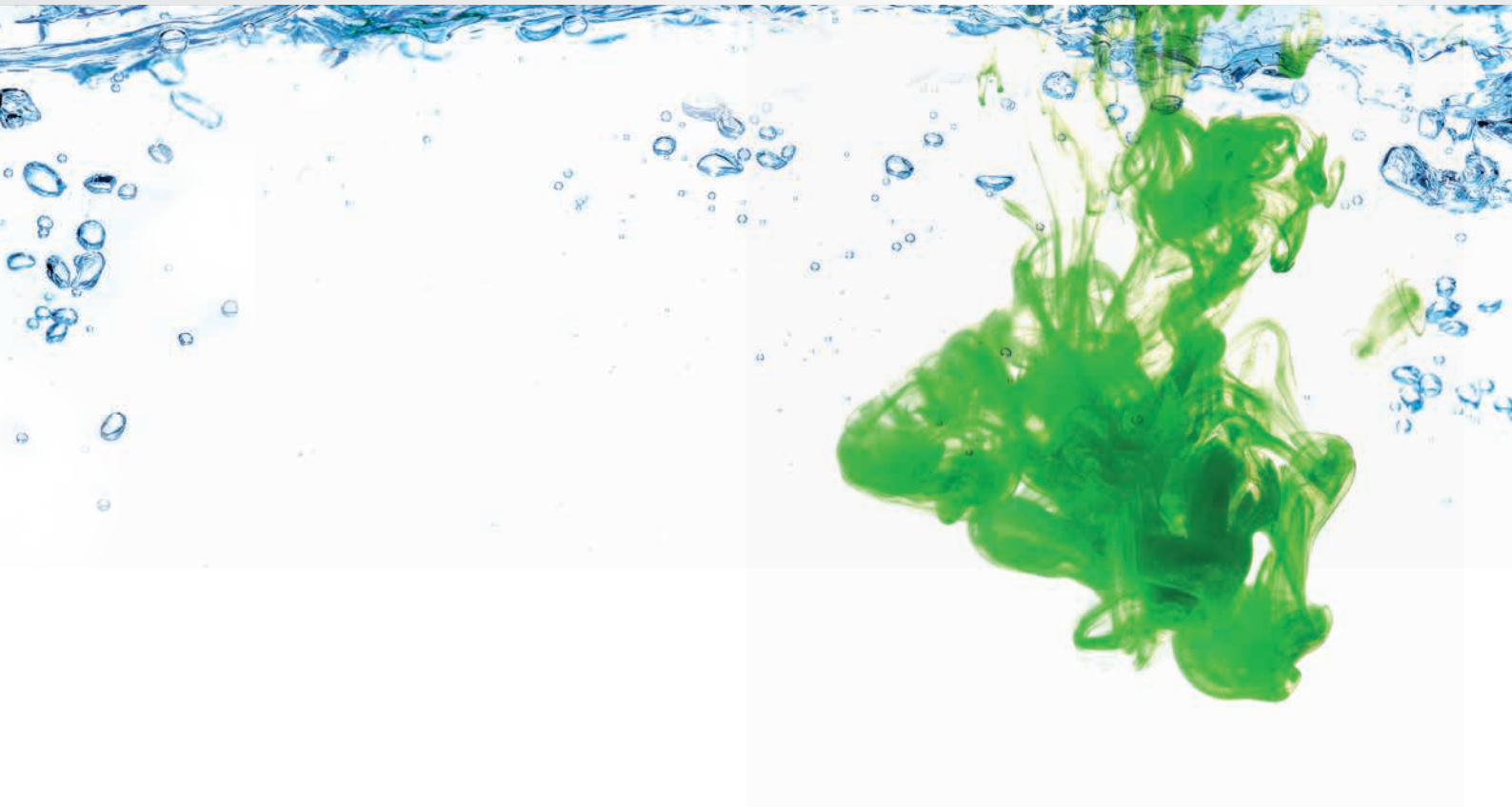
**Mycobactericidal and tuberculocidal:** EN 14348, EN 14563 (*M. terrae*, *M. avium*)

**Virucidal:** EN 14476 (Poliovirus, Adenovirus, Norovirus, Parvovirus, including HIV, HBV, HCV)

**Sporicidal:** EN 13704 (*B. subtilis*)

*Tests carried out in dirty conditions.*

# Surfaces



# Zeta 3 Soft



## Surfaces

A ready-to-use, alcohol-based disinfectant and cleaner for the surfaces of medical devices.

**Active ingredients:** alcohols.

**LEMON AND CLASSIC FRAGRANCES**



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, tuberculicidal and virucidal.
- ▶ 2-in-1 action: simultaneous cleaning and disinfecting.
- ▶ Rapid drying.
- ▶ Reduced alcohol content, below 50%.
- ▶ Safe to use: free from aldehydes and phenols.

## Use

Spray **Zeta 3 Soft** onto the surface to be disinfected directly or through a cloth. Wipe the entire surface to be disinfected thoroughly before the product has evaporated completely, then leave to dry.

## Spectrum



**Bactericidal:** EN 13727, EN 14561 (*S. aureus*, *P. aeruginosa*, *E. hirae*)

**Yeasticidal:** EN 13624, EN 14562 (*C. albicans*)

**Tuberculicidal:** EN 14348, EN 14563 (*M. terrae*)

**Virucidal:** EN 14476 (Poliovirus, Adenovirus, Norovirus, Parvovirus, including HIV, HBV, HCV, H1N1)

*Tests carried out in dirty conditions.*

# Zeta 3 Wipes TOTAL



## Surfaces

Alcohol solution wipes for the rapid disinfection and cleaning of the surfaces of small medical devices.

**Active ingredients:** alcohols.



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, tuberculicidal and virucidal.
- ▶ 2-in-1 action: simultaneous cleaning and disinfecting.
- ▶ Rapid drying.
- ▶ Reduced alcohol content, below 50%.
- ▶ Safe to use: free from aldehydes and phenols.

## Use

Rub **Zeta 3 Wipes TOTAL** over the entire surface to be disinfected and leave to dry.

## Spectrum



**Bactericidal:** EN 13727, EN 14561 (*S. aureus*, *P. aeruginosa*, *E. hirae*)

**Yeasticidal:** EN 13624, EN 14562 (*C. albicans*)

**Tuberculicidal:** EN 14348, EN 14563 (*M. terrae*)

**Virucidal:** EN 14476 (Poliovirus, Adenovirus, Norovirus, Parvovirus, including HIV, HBV, HCV, H1N1)

*Tests carried out in dirty conditions.*

Standards applicable to the solution

Effectiveness of wipes (according to prEN 16615, 10 mins contact):

R>4Log against *S. aureus*, *E. hirae*

R>3Log against *C. albicans*, *P. aeruginosa*

# Zeta 3 Foam



## Surfaces

A ready-to-use, alcohol-free disinfectant and cleaner foam. Especially suitable for delicate invasive and not invasive medical device surfaces.

**Active ingredients:** 5th generation quaternary ammonium salts.

**LEMON FRAGRANCE**



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, tuberculocidal and virucidal.
- ▶ Tested compatibility with surfaces, including the most delicate ones.
- ▶ Practical: the highly visible nature of the foam makes it easy to spread over the entire surface to disinfect.
- ▶ Safe to use: free from aldehydes and phenols.

## Use

**Spray Zeta 3 Foam over the area** until the surfaces and areas to be disinfected are sufficiently covered (4 sprays of Zeta 3 Foam allow to cover a surface of 0,25 m<sup>2</sup>). Leave it to work, then remove the disinfecting emulsion with a tissue and finally leave to dry.

Alternatively, it is possible to **spray Zeta 3 Foam on a tissue** and wipe it over surfaces and areas to be disinfected. It is recommended to follow the times indicated in the table. Exposures for longer times could lead to a long-term deterioration of the treated surfaces.

## Spectrum



**Bactericidal:** EN 13727, EN 13697, EN 16615\*, EN 14561 (S. aureus, P. aeruginosa, E. hirae)

**Yeasticidal:** EN 13624, EN 13697, EN 16615, EN 14562 (C. albicans)

**Tuberculocidal:** EN 14348, EN 14563 (M. terrae)

**Virucidal:** EN 14476 (Poliovirus, Adenovirus, Norovirus, Parvovirus, including HIV, HBV, HCV, H1N1)

*Tests carried out in dirty conditions.*

*\*E. Coli included.*

# Zeta 3 Wipes POP-UP



## Surfaces

Large wipes impregnated with a weak alcohol solution for rapid disinfection and cleaning of the surfaces of even the most delicate medical devices.

**Active ingredients:** quaternary ammonium salts.

### MINT FRAGRANCE



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, fungicidal, tuberculocidal and virucidal.
- ▶ Dermatologically tested.
- ▶ Strong, soft and compact fabric.
- ▶ Safe to use: free from aldehydes and phenols.

## Use

Rub **Zeta 3 Wipes POP-UP** thoroughly over the entire surface to be cleaned, making sure that the surface is left evenly damp and leave the product work for.

### DERMATOLOGICALLY TESTED

## Spectrum



**Bactericidal:** EN 13697, EN 1276\*, EN 14561\*, EN 14561 (MRSA)

**Fungicidal:** EN 14562 (A. fumigatus)

**Yeasticidal:** EN 1650\*, EN 13624, EN 13697, EN 14562 (C. albicans)

**Tuberculocidal:** EN 14348, EN 14563 (M. terrae)

**Virucidal:** EN 14476 (HBV, HCV, Adenovirus, Coronavirus, Norovirus, VRS, Polyomavirus, H1N1, Rotavirus), EN 14476\* (HSV)

*Tests carried out in clean conditions.*

*\* Tests carried out in dirty conditions.*

# Zeta 4 Wash



## Surfaces

A concentrated cleaner and deodorising solution for washable surfaces.

**Active ingredients:** non-ionic and cationic surfactants.



## PRODUCT BENEFITS

- ▶ Ensures rapid, deep cleaning and leaves a fresh, clean fragrance.
- ▶ Compatible with all materials.
- ▶ Over 90% biodegradable.

## Use

Add 1-2 dosing caps to every litre of water. For cleaning ingrained dirt, use a few drops of the concentrated solution on a damp cloth.





# Special applications



# Zeta 5 Power Act



## Special applications

A specific concentrated disinfectant and cleaner for suction units and spittoons.

**Active ingredients:** alkylamine and quaternary ammonium salts.

**1% DILUTION**



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, tuberculocidal and limited virucidal.
- ▶ Rapid acting formula: disinfects in 15 minutes.
- ▶ Tested compatibility with the suction unit components.
- ▶ Non-foaming and non-aggressive to vacuum tubes.
- ▶ Safe to use: free from aldehydes and phenols.
- ▶ Easy to use: short time of action and easy dosage bottle with dispenser

## Use

**1% dilution:** add 10 ml of **Zeta 5 Power Act** to every litre of water and stir to dissolve. Prepare at least one litre of solution per dental unit. Aspirate the prepared solution through the vacuum system. Leave the solution work for 15 minutes to achieve rapid disinfection (excluding tuberculocidal action) or leave overnight for complete action. Pour at least 250 - 300 ml of disinfectant solution into the rinsing basin and leave to work.

**ONE LITRE OF ZETA 5 POWER ACT GIVES 100 LITRES OF DISINFECTANT SOLUTION.**

## Spectrum



**Bactericidal:** EN 13727, EN 14561 (*S. aureus*, *P. aeruginosa*, *E. hirae*)

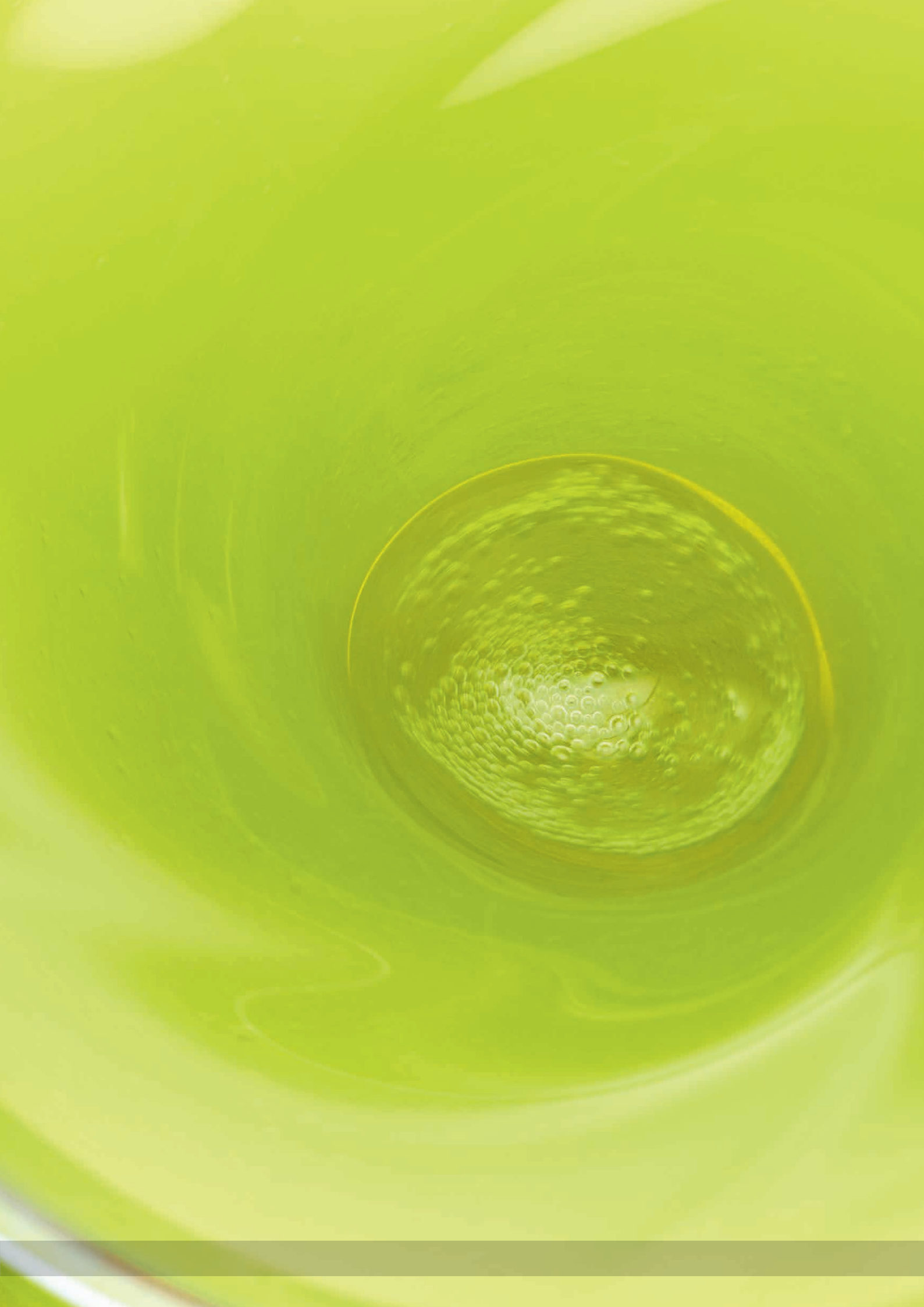
**Yeasticidal:** EN 13624, EN 14562 (*C. albicans*)

**Tuberculocidal:** EN 14348 (*M. terrae*)

**Limited virucidal:** prEN 16777, DWV/RKI against encapsulated and lipophilic viruses including haematic viruses (HIV, HBV, HCV), herpes simplex and virus families such as orthomyxoviridae (including all forms of human and animal influenza virus such as H5N1 and H1N1), filoviridae (ebola virus) and paramyoviridae (measles virus)

**Bactericidal, Yeasticidal:** VAH

*Tests carried out in dirty conditions.*



# Zeta 7 Spray



## Special applications

A ready-to-use disinfectant spray for the rapid disinfection of impressions.

**Active ingredients:** alcohols.



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, tuberculocidal and virucidal.
- ▶ Compatibility with materials for the impression taking (addition and condensation silicones, alginate, polyether, polysulphide and polyvinyl).
- ▶ Safe to use: free from aldehydes and phenols.
- ▶ Practical, fast and ready to use, without rinsing, disinfects up to 250 impressions.

## Use

Rinse the impression under running water. Spray **Zeta 7 Spray** onto both sides of the impression to obtain a continuous film of disinfectant covering the two surfaces. Leave to dry for at least 3 minutes.

**RESPECTS THE DIMENSIONAL STABILITY OF IMPRESSIONS.**

## Spectrum



**Bactericidal:** EN 13727 (S. aureus, P. aeruginosa, E. hirae)

**Yeasticidal:** EN 13624 (C. albicans)

**Tuberculocidal:** EN 14348, EN 14563 (M. terrae)

**Virucidal:** EN 14476 (tested on Poliovirus, Adenovirus, Norovirus, Parvovirus, including HIV, HBV, HCV)

*Tests carried out in dirty conditions.*

# Zeta 7 Solution



## Special applications

A concentrated disinfectant for impressions.

**Active ingredients:** quaternary ammonium salts, phenoxyethanol.

**1% DILUTION**



## PRODUCT BENEFITS

- ▶ High protection: bactericidal, yeasticidal, tuberculocidal and virucidal against enveloped viruses.
- ▶ Compatibility with impression materials (addition and condensation silicones, alginate, polyether, polysulphide and polyvinyl).
- ▶ High efficiency concentrated formula.
- ▶ Respects the dimensional stability of impressions and their compatibility with gypsum.
- ▶ Safe to use: free from aldehydes and phenols.

## Use

**1% dilution:** add 10 ml of **Zeta 7 Solution** to every litre of water. Rinse the impression under running water. Immerse the impression in the disinfectant solution for 10 minutes. Remove the impression from the bath and rinse it thoroughly.

**ONE LITRE OF ZETA 7 SOLUTION GIVES 100 LITRES OF DISINFECTANT SOLUTION. (UP TO 40 IMPRESSIONS CAN BE DISINFECTED WITH ONE LITER OF SOLUTION\*).**

\*The solution must be replaced every day and immediately in case of visible contamination (blood, saliva or organic tissue).

## Spectrum



**Bactericidal:** EN 13727 (*S. aureus*, *P. aeruginosa*, *E. hirae*)

**Yeasticidal:** EN 13624 (*C. albicans*)

**Bactericidal, Yeasticidal:** VAH (30')

**Tuberculocidal:** EN 14348 (*M. terrae*)

**Virucidal against enveloped viruses:** EN 14476 (Vaccinia Virus including HIV, HBV, HCV)

*Tests carried out in dirty conditions.*

# Algitray



## Special applications

A specific cleaner, free of phosphates and surfactants, for removing alginate residues from impression trays and other instruments.



## PRODUCT BENEFITS

- ▶ Non-hazardous for the environment and for users: contains up to 98% of biodegradable detergent ingredients.
- ▶ High performance: quickly removes all traces of alginate from impression trays and other instruments.
- ▶ Safe to use on instruments: non-aggressive to metals thanks to a neutral pH.

## Use

Add 100 g of **Algitray** (4 spoons) to 1 litre of water and stir gently until completely dissolved. Remove as much alginate from the impression trays or instruments as possible. Immerse the impression trays or instruments in the solution.

Leave to react for about 15-30 minutes. Remove the impression trays or instruments from the solution. Brush off all remaining traces of alginate then rinse under running water.

**1 KG TUB OF ALGITRAY GIVES 10 LITRES OF CLEANING SOLUTION.**

# Gypstray



## Special applications

A ready-to-use solution for removing residues of gypsum and gypsum coatings from impression trays, spatulas or other instruments.



### PRODUCT BENEFITS

- ▶ High performance: quickly removes all traces of gypsum from impression trays and other instruments.
- ▶ Practical and ready to use.
- ▶ Safe on materials: a non-aggressive formula guarantees safe use every time.

### Use

Pour out enough **Gypstray** to completely cover the items to clean. Immerse the instruments or trays and leave the solution to work for about 15-30 minutes, depending on the type and quantity of residues. Effervescence indicates that the solution is working.

Remove the items from the solution and rinse with water.



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# Hands



# Zeta 6 Hydra



## Hands

A delicate cleaner for frequent use on hands and delicate skin.

**Active ingredients:** aqua (water), cocamidopropyl betaine, sodium cocoamphoacetate, lauryl glucoside, glycerin, ammonium lauryl sulfate, glyceryl oleate, hydrolyzed rice protein, coco glucoside, sodium lauryl glucose carboxylate, sodium cocoyl glutamate, dehydroacetic acid, benzyl alcohol, citric acid, disodium EDTA, parfum (fragrance).



## PRODUCT BENEFITS

- ▶ Nourishing, protective and moisturising action.
- ▶ Also suitable for washing face and body.

## Use

Wet the hands and pour **Zeta 6 Hydra** into the palm of one hand. Rub the hands together thoroughly then rinse and dry.

**Zeta 6 Hydra** contains a mix of vegetable substances with the following properties:

- nourishing, thanks to hydrolyzed rice protein, which restores the skin's natural softness
- protective, thanks to glyceryl oleate, which preserves and helps restore the lipidic structure of the skin's outer layers
- moisturising, thanks to glycerin, which helps prevent dryness and irritation

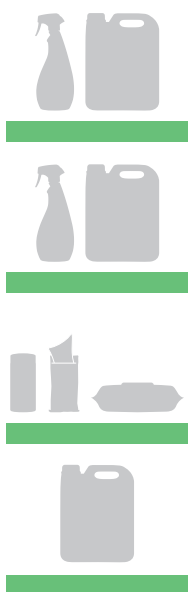


# Packaging



## Disinfectants and sterilising agents for ordinary, surgical dental instruments and burs

Code	Product	Packaging
C810000	Zeta 1 Ultra	1 litre bottle
C810012	Zeta 2 Enzyme	1200 g tub with dosing spoon
C810011	Zeta 2 Sporex	900 g tub with dosing spoon



## Disinfectants and cleansers for the surfaces of medical devices

Code	Product	Packaging
C810023	Zeta 3 Soft	750 ml bottle with spray cap
C810024	Zeta 3 Soft	5 litre canister (2 x 2.5 litres) with dispenser
C810027	Zeta 3 Soft Classic	750 ml bottle with spray cap
C810028	Zeta 3 Soft Classic	5 litre canister (2 x 2.5 litres) with dispenser
C810025	Zeta 3 Foam	750 ml bottle with foam dispenser
C810026	Zeta 3 Foam	3 litre canister with dispenser
C810063	Zeta 3 Wipes TOTAL	Tub of 120 wipes
C810062	Zeta 3 Wipes TOTAL	Soft pack of 120 wipes
C810064	Zeta 3 Wipes POP-UP	Soft pack of 100 wipes
C810037	Zeta 4 Wash	3 litre canister



### Special applications Disinfectants and cleaners for suction units

Code	Product	Packaging
C810040	Zeta 5 Power Act	1 litre bottle



### Special applications Disinfectants for impressions

Code	Product	Packaging
C810050	Zeta 7 Spray	750 ml bottle with spray cap
C810048	Zeta 7 Solution	1 litre bottle



### Special applications Cleaners for cleaning and removing alginate and gypsum residues from instruments

Code	Product	Packaging
C400435	Algitray	1 kg tub with dosing spoon
C400441	Gypstray	3 litre canister



### Cleaner for hand hygiene

Code	Product	Packaging
C810042	Zeta 6 Hydra	1 litre bottle with dosing cap
C810043	Zeta 6 Hydra	5 litre canister with dispenser

# European standards

## BACTERICIDAL ACTIVITY

### EN 13727

#### Suspension activity (phase 2/1):

"Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity for instruments used in the medical area."

### EN 14561

#### Surface activity (phase 2/2):

"Chemical disinfectants and antiseptics - Quantitative carrier test for the evaluation of bactericidal activity for instruments used in the medical area."

#### Reference micro-organisms:

Staphylococcus aureus (gram positive bacteria model micro-organism) ATCC 6538.

Pseudomonas aeruginosa (gram negative bacteria model micro-organism) ATCC 15442.

Enterococcus hirae (gram positive bacteria, present in places contaminated with faeces) ATCC 10541.

#### Interfering substances:

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) – Dirty conditions.

#### Requirement:

≥ 5 log microbial reduction at the indicated concentrations and contact times.

### EN13697

#### Surface Activity (phase 2, step 2) – SURFACE DISINFECTION WITHOUT MECHANICAL ACTION:

"Chemical disinfectants and antiseptics, Quantitative non-porous surface test for the evaluation of **bactericidal** and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas. Test method and requirements without mechanical action".

#### Reference micro-organisms:

Staphylococcus aureus (gram positive bacteria model micro-organism) ATCC 6538.

Pseudomonas aeruginosa (gram negative bacteria model micro-organism) ATCC 15442.

Enterococcus hirae (gram positive bacteria, present in places contaminated with faeces) ATCC 10541.

Escherichia coli ATCC 10536

#### Interfering Substances:

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) – Dirty conditions.

#### Requirements:

≥ 4,0 log microbial reduction at the indicated concentrations and contact times.

### EN16615

#### Surface Activity (phase 2, step 2) – SURFACE DISINFECTION WITH MECHANICAL ACTION:

"Chemical disinfectants and antiseptics - Quantitative test method for the evaluation of **bactericidal** and yeasticidal activity on non-porous surfaces with mechanical action employing wipes in the medical area (4-field test) - Test method and requirements"

#### Reference micro-organisms:

Staphylococcus aureus (gram positive bacteria model micro-organism) ATCC 6538.

Pseudomonas aeruginosa (gram negative bacteria model micro-organism) ATCC 15442.

Enterococcus hirae (gram positive bacteria, present in places contaminated with faeces) ATCC 10541.

#### Interfering Substances:

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) – Dirty conditions.

#### Requirements:

≥ 5,0 log on field 1

an average of ≤ 50 cfu/25 cm<sup>2</sup> on fields 2 to 4

(microbial reduction at the indicated concentrations and contact times)

## FUNGICIDAL / YEASTICIDAL ACTIVITY:

### EN 13624

#### Suspension activity (phase 2/1):

"Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area."

### EN 14562

#### Surface activity (phase 2/2):

"Chemical disinfectants and antiseptics – Quantitative carrier test for the evaluation of fungicidal or yeasticidal activity for instruments used in the medical area."

#### Reference micro-organisms:

Aspergillus niger (mould model microorganism) ATCC 16404

Candida albicans (yeast model microorganism) ATCC 10231

#### Interfering substances:

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) – Dirty conditions.

#### Requirement:

≥ 4 log microbial reduction at the indicated concentrations and contact times.

### EN13697

#### Surface Activity (phase 2, step 2) – SURFACE DISINFECTION WITHOUT MECHANICAL ACTION:

"Chemical disinfectants and antiseptics, Quantitative non-porous surface test for the evaluation of bactericidal and/or **fungicidal** activity of chemical disinfectants used in food, industrial, domestic and institutional areas. Test method and requirements without mechanical action".

#### Reference micro-organisms:

a) Candida albicans ATCC 10231

FOR YEASTICIDAL ACTIVITY

b) Aspergillus brasiliensis ATCC 16404, Candida albicans ATCC 10231

FOR FUNGICIDAL ACTIVITY

#### Interfering Substances:

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) – Dirty conditions.

#### Requirements:

≥ 3,0 log microbial reduction at the indicated concentrations and contact times.

### EN16615

#### Surface Activity (phase 2, step 2) – SURFACE DISINFECTION WITH MECHANICAL ACTION:

"Chemical disinfectants and antiseptics - Quantitative test method for the evaluation of bactericidal and **yeasticidal** activity on non-porous surfaces with mechanical action employing wipes in the medical area (4-field test) - Test method and requirements"

#### Reference micro-organisms:

Candida albicans ATCC 10231

#### Interfering Substances:

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) – Dirty conditions.

#### Requirements:

≥ 4,0 log on field 1

an average of ≤ 50 cfu/25 cm<sup>2</sup> on fields 2 to 4

(microbial reduction at the indicated concentrations and contact times)

## TUBERCULOCIDAL / MYCOBACTERICIDAL ACTIVITY:

### EN 14348

#### Suspension activity (phase 2/1):

"Chemical disinfectants and antiseptics — Quantitative suspension test for the evaluation of mycobactericidal activity of chemical disinfectants in the medical area including instrument disinfectants."

### EN 14563

#### Surface activity (phase 2/2):

"Chemical disinfectants - Quantitative carrier test for the evaluation of mycobactericidal activity of chemical disinfectants for instruments used in

the medical area."

**Reference micro-organisms:**

- a) Mycobacterium Terrae ATCC 15755 for tuberculocidal activity
- b) Mycobacterium Terrae ATCC 15755, Mycobacterium Avium ATCC 15769 for mycobactericidal activity

**Interfering substances:**

Bovine albumen: 3,0 g/l plus sheep erythrocytes: 3 ml/l (simulating the presence of heavy contamination with organic material) - Dirty conditions.

**Requirement:**

≥ 4 log microbial reduction at the indicated concentrations and contact times.

**VIRUCIDAL ACTIVITY:**

**EN 14476**

**Suspension activity (phase 2/1):**

"Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of virucidal activity in the medical area."

**Reference micro-organisms:**

- Type 1 poliovirus (Picornavirus group - RNA virus), LSc - 2ab strain;
- Type 5 Adenovirus (Adenovirus group - DNA virus), Adenoid 75 strain, ATCC VR - 5;
- Murine Norovirus (Calicivirus group – RNA virus), S99 Berlin strain;
- Bovine parvovirus, Haden strain, ATCC VR – 767 (optional);
- Modified Vaccinia virus Ankara (MVA), ATCC VR-1508.

**Interfering substances:**

3.0% bovine foetal serum (simulating the presence of blood as contaminant) – Dirty conditions.

**Requirement:**

≥ 4 log microbial reduction at the indicated concentrations and contact times.

**EN 16777 – DVV/RKI**

**Surface activity (phase 2/2):**

Chemical disinfectants and antiseptics - Quantitative non-porous surface test without mechanical action for the evaluation of virucidal activity of chemical disinfectants used in the medical area - Test method and requirements (Phase 2/Step 2)

**Reference micro-organisms:**

- Modified Vaccinia Ankara virus (MVA), ATCC VR-1508 and strain Elstree
- Bovine viral diarrhoea virus (BVDV), a surrogate of HCV (Hepatitis C virus), NADL (VR-534)

**Interfering substances:**

bovine foetal serum (simulating the presence of blood as contaminant) - Dirty conditions.

**Requirement:**

≥ 4 log microbial reduction at the indicated concentrations and contact times.

**SPORICIDAL ACTIVITY:**

**EN 13704**

**Suspension activity (phase 2/1):**

"Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas."

**Reference micro-organisms:**

- Bacillus subtilis var. niger ATCC 9372

**Interfering substances:**

0.03% bovine albumen (simulating the presence of contaminating organic material) - Clean conditions.

**Requirement:**

≥ 3 log reduction at the indicated concentrations and contact times.

*For further details, please read the instructions for use for the Zeta Hygiene range of products.*

# Fulfilling your needs