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Issue No.: 1

Test report No. 1573-2/2012

DETERMINATION OF BACTERICIDAL, FUNGICIDAL,  
MYCOBACTERICIDAL AND TUBERCULOCIDAL ACTIVITY OF THE  
PRODUCT **HMI 29 – HMI PEROSTER CE**  
DETERMINATION OF VIRUCIDAL ACTIVITY OF THE PRODUCT  
**HMI 29 – HMI PEROSTER CE**

Sample ID: 1573-2/2012

Sample name: HMI 29 – HMI PEROSTER CE

Client: S. C. BIOSTEC CLINILAB S.R.L., STR. GENERAL TRAIAN MOSOIU, NR. 39, LOC. CLUJ-NAPOCA, JUD. CLUJ, ROMANIA

Producer: HYGIENE MEDICAL INDUSTRY Co., Ltd., 81A N. Gabrovski st., 5000 Veliko Tarnovo, Bulgaria

Sampling point: HYGIENE MEDICAL INDUSTRY Co., Ltd., 81A N. Gabrovski st., 5000 Veliko Tarnovo, Bulgaria

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Incoming date:

20. 7. 2012

Delivery date:

12. 11. 2012

Hodonin, 12. 11. 2012

Zuzana Matušková, Head of Laboratory

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Description: Testing the efficacy of chemical disinfectants and antiseptics

Sample ID: 1573-2/2012

Rep No: 73

Sample name: **HMI 29 – HMI PEROSTER CE**

Sampled: by client

Sampling point: HYGIENE MEDICAL INDUSTRY Co., Ltd.

Client: S. C. BIOSTEC CLINILAB S.R.L., JUD. CLUJ, ROMANIA

Sampling date: 26. 6. 2012

Sample delivered: 20. 7. 2012

Testing date: 15. 8. – 26. 9. 2012

Delivered amount: 0.4 kg

Batch No: 29 069

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Interpretation:

Results of tests are in Tabs.

According to EN 13727 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in concentration 2%, diluted in hard water, and contact times 5 and 15 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , by the dilution-neutralization method, **decreased** the number of alive microbes *Pseudomonas aeruginosa* ATCC 15442, *Staphylococcus aureus* ATCC 6538, *Enterococcus hirae* ATCC 10541 by 5 (lg) orders.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and product **decreased** the number of alive microbes *Pseudomonas aeruginosa* ATCC 15442, *Staphylococcus aureus* ATCC 6538, *Enterococcus hirae* ATCC 10541 by 6 (lg) orders.

According to EN 14561 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in concentration 2%, diluted in hard water, and contact times 5 and 15 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , by the dilution-neutralization method, **decreased** on carriers the number of alive microbes *Pseudomonas aeruginosa* ATCC 15442, *Staphylococcus aureus* ATCC 6538, *Enterococcus hirae* ATCC 10541 by 5 (lg) orders.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and product **decreased** the number of alive microbes *Pseudomonas aeruginosa* ATCC 15442, *Staphylococcus aureus* ATCC 6538, *Enterococcus hirae* ATCC 10541 by 6 (lg) orders.

The tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in the concentration 2%, diluted in hard water, and contact time 15 min, under clean conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , by the dilution-neutralization method, **decreased** the number of alive microbes *Candida albicans* ATCC 10231, *Aspergillus niger* ATCC 16404 by 4 (lg) orders (EN 13624).

According to EN 13624 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in the concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in the concentration 2%, diluted in hard water, and contact times 5 and 15 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , by the dilution-neutralization method, **decreased** the number of alive microbes *Candida albicans* ATCC 10231 by 4 (lg) orders. According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and product **decreased** the number of alive microbes *Candida albicans* ATCC 10231 by 6 (lg) orders.

According to EN 14348 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in concentration 2%, diluted in hard water, and contact time 15 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , by the dilution-neutralization method, **decreased** the number of alive microbes *Mycobacterium terrae* ATCC 15755 and *Mycobacterium avium* ATCC 15769 by 4 (lg) orders.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and product **decreased** the number of alive microbes *Mycobacterium terrae* ATCC 15755 and *Mycobacterium avium* ATCC 15769 by 6 (lg) orders.

According to EN 14563 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in concentration 2%, diluted in hard water, and contact time 15 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , by the dilution-neutralization method, **decreased** on carriers the number of alive microbes *Mycobacterium terrae* ATCC 15755 and *Mycobacterium avium* ATCC 15769 by 4 (lg) orders.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and product **decreased** the number of alive microbes *Mycobacterium terrae* ATCC 15755 and *Mycobacterium avium* ATCC 15769 by 6 (lg) orders.

Description: Testing the efficacy of chemical disinfectants and antiseptics

Sample ID: 1573-2/2012

Rep No: 73

Sample name: **HMI 29 – HMI PEROSTER CE**

Sampled: by client

Sampling point: HYGIENE MEDICAL INDUSTRY Co., Ltd.

Client: S. C. BIOSTEC CLINILAB S.R.L., JUD.CLUIJ, ROMANIA

Sampling date: 26. 6. 2012

Sample delivered: 20. 7. 2012

Testing date: 15. 8. – 26. 9. 2012

Delivered amount: 0.4 kg

Batch No: 29 069

Page: 29

Interpretation:

Results of tests are in Tabs.

According to EN 14476+A1 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in concentration 2%, diluted in hard water, and contact time 5 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , **proved** by the method of virus titration on monolayers of cells on microtiter plates to reduce the number of infectious *Adenovirus* type 5, strain Adenoid 75, ATCC VR-5 particles under defined conditions by at least 4 (lg) orders.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and the product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 2%, diluted in hard water, and contact time 5 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , **proved** by the method of virus titration on monolayers of cells on microtiter plates to reduce the number of infectious *Adenovirus* type 5, strain Adenoid 75, ATCC VR-5 particles under defined conditions by at least 6 (lg) orders.

According to EN 14476+A1 the tested product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 1%, diluted in hard water, and contact times 30 and 60 min, and in concentration 2%, diluted in hard water, and contact time 5 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , **proved** by the method of virus titration on monolayers of cells on microtiter plates to reduce in the number of infectious *Poliovirus* type 1, LSc-2ab particles under defined conditions by at least 4 (lg) orders.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and the product **HMI 29 – HMI PEROSTER CE**, batch No. 29069, in concentration 2%, diluted in hard water, and contact time 5 min, under clean and dirty conditions, at temperature  $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ , **proved** by the method of virus titration on monolayers of cells on microtiter plates to reduce the number of infectious *Poliovirus* type 1, LSc-2ab particles under defined conditions by at least 6 (lg) orders.

Conclusion:

The product **HMI 29 – HMI PEROSTER CE** is capable of reducing the number of viable bacterial cells, the number of mycobacterial cells of the relevant organisms under defined conditions to the declared values and, consequently, may be called bactericidal, mycobactericidal and tuberculocidal. The product **HMI 29 – HMI PEROSTER CE** is capable of reducing the number of viable vegetative yeast cells and mould spores of the relevant organisms under defined conditions to the declared values and, consequently, may be called fungicidal.

The product **HMI 29 – HMI PEROSTER CE** is capable of reducing the number of infectious *Adenovirus* type 5, strain Adenoid 75, ATCC VR-5 and *Poliovirus* type 1, LSc-2ab particles under defined conditions to the declared values, and consequently, may be called virucidal on *Adenovirus* and *Poliovirus*.

According to the client's request was used higher concentration of the test organisms for the determination of the reduction by at least 6 orders ( $10^6$ ) and the product **HMI 29 – HMI PEROSTER CE** is capable of reducing the number of viable bacterial cells, the number of viable vegetative yeast cells, the number of mycobacterial cells, the number of infectious *Adenovirus* type 5, strain Adenoid 75, ATCC VR-5 and *Poliovirus* type 1, LSc-2ab particles under defined conditions by at least 6 orders ( $10^6$ ).

12. 11. 2012, Hodonín

Ing. Jana Šlitrová, Leader of Study



## Test report no L19/0078.2

Quantitative suspension test for the evaluation of sporicidal activity of **HMI PEROSTER CE** in Food, Industrial, Domestic and Institutional Areas according to DIN EN 13704:2018 (Phase 2, step 1)\*

In accordance with your order, we tested the preparation **HMI PEROSTER CE** for its activity in the quantitative suspension test according to DIN EN 13704:2018\* under clean conditions.

### 1 General Information and Material

#### 1.1 Client

Client: Biostec Clinilab SRL, Mr Popa, str. G-ral Traian Mosoiu, jud. 39,  
RO – 11324711 Cluj-Napoca  
Date of order: 31/01/2019  
Confirmation no.: 208051

#### 1.2 Identification of Test Laboratory

Location: Dr. Brill + Partner GmbH · Institute for Hygiene and Microbiology,  
Stiegstück 34, DE-22339 Hamburg, Germany  
Study manager: Dipl.-Biol. Henrik Gabriel  
Scientific assistant: Dipl.-Biol. Dr. rer. nat. Jan-Hendrik Klock  
Laboratory technicians: Eileen Bruder

#### 1.3 Table of Contents

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#### 1.4 Identification of Sample

Name of product: **HMI PEROSTER CE**  
Batch no.: 29173

\* Test procedure accredited according to DIN EN ISO/IEC 17025. Test report issued by Dr. Brill + Partner GmbH, Stiegstück 34, DE - 22339 Hamburg, Phone +49 40 557631-0, Telefax +49 40 557631-11, [www.brillhygiene.com](http://www.brillhygiene.com). No copying or transmission, in whole or in part, of this test report without the explicit prior written permission. The test results exclusively apply to the tested samples. Information on measurement uncertainty and Version history on request. © Dr. Brill + Partner GmbH 2019



**DR. BRILL + DR. STEINMANN**  
INSTITUT FÜR HYGIENE UND MIKROBIOLOGIE

Test report no L19/0078.2  
Author MS Version 01 Date 22/03/2019  
Replaces Version Date

Name of Product **HMI PEROSTER CE**  
Method DIN EN 13704:2018\*

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### 3 Results

The test results based on DIN EN 13704: 2018 are summarised in table 1.

The spores were sufficiently (RF >3) inactivated with the following concentration-time relationship:

Sporicidal:	clean conditions	2.0 %	15 min
	clean conditions	1.0 %	30 min

Hamburg, 22/03/2019

Dipl.-Biol. Henrik Gabriel  
Head of Laboratory

Dipl.-Biol. Dr. rer. nat. Jan-Hendrik Klock  
Quality control



\* Test procedure accredited according to DIN EN ISO/IEC 17025. Test report issued by Dr. Brill + Partner GmbH, Stiegstück 34, DE - 22339 Hamburg, Phone +49 40 557631-0, Telefax +49 40 557631-11, [www.brillhygiene.com](http://www.brillhygiene.com). No copying or transmission, in whole or in part, of this test report without the explicit prior written permission. The test results exclusively apply to the tested samples. Information on measurement uncertainty and Version history on request. © Dr. Brill + Partner GmbH 2019

