



CHEMGENE HLD₄H

SUMMARY OF MICROBIOLOGICAL TEST REPORTS





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VIRUCIDAL ACTIVITY

BS EN 14476:2005 - Chemical disinfectants and antiseptics. Virucidal quantitative suspension test for chemical disinfectants and antiseptics used in human medicine. Test method and requirements (phase 2, step 1) **Standard test organisms**

EN14476 - Adenovirus, Murine Norovirus and Poliovirus, EN14675 - Bovine Enterovirus Type 1

Obligatory Lg reduction ≥ 4 (Requirements may vary by claim)

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
Adenovirus	BLUTEST	1:10	EN14476 CLEAN	5 mins	> LOG 4
Hepatitis B	ATS LABS	1:50	EN14476 CLEAN	5 mins	LOG 4.67
Herpes Simplex	BLUTEST	1:50	EN14476 DIRTY	5 mins	LOG 4.16
Human Immunodeficiency Virus	BLUTEST	1:50	EN14476 DIRTY	60 mins	LOG 4.50
Murine Norovirus	BLUTEST	1:10	EN14476 CLEAN	5 mins	> LOG 4
Murine Norovirus	BLUTEST	1:100	EN14476 CLEAN	20 mins	> LOG 4
Vaccinia Virus	CHEMILA	1:10	EN14476 CLEAN	30 mins	> LOG 4

MYCOBACTERICIDAL ACTIVITY

EN 14348 - Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of mycobactericidal activity of chemical disinfectants in the medical area including instrument disinfectants - Test method and requirements (phase 2, step 1)

Standard test organisms

Mycobacterium avium, *Mycobacterium terrae*

Test conditions

Clean conditions (0.3g/l bovine albumin)- Dirty conditions (3.0g/l bovine albumin + 3.0ml/l sheep erythrocytes)

Obligatory Lg reduction ≥ 4 in 60 minutes at 20°C

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
<i>Mycobacterium avium</i>	CHEMILA	1:20	EN14348 CLEAN	30 mins	> LOG 4
<i>Mycobacterium terrae</i>	CHEMILA	1:20	EN14348 CLEAN	30 mins	> LOG 4

BACTERIOPHAGE

EN 13610:2002 - Chemical disinfectants. Quantitative suspension test for the evaluation of virucidal activity against bacteriophages of chemical disinfectants used in food and industrial areas. Test method and requirements (phase 2, step 1)

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
<i>Lactococcus lactis</i> subsp. <i>lactis</i> bacteriophage P001	CHEMILA	1:10	EN113610	5 mins	> LOG 4
<i>Lactococcus lactis</i> subsp. <i>lactis</i> bacteriophage P008	CHEMILA	1:10	EN113610	5 mins	> LOG 4



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YEASTICIDAL/ FUNGICIDAL ACTIVITY

EN 13697 - 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 (phase 2, step 2)

Standard test organisms

Aspergillus niger, *Candida albicans*

Test conditions

Clean conditions (0.3g/l bovine albumin) - Dirty conditions (3.0g/l bovine albumin) Industry specific (must also pass under standard dirty conditions)

Fungicidal/Yeasticidal

Obligatory Lg reduction ≥ 3 in 15 minutes at 20°C

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
<i>Candida albicans</i>	BLUTEST	1:50	EN13697:2001 DIRTY	5 mins	> LOG 4
<i>Candida albicans</i>	BLUTEST	1:100	EN13697:2001 DIRTY	15 mins	> LOG 4
<i>Candida albicans</i>	CHEMILA	1:50	EN13697:2013	5 mins	> LOG 4
<i>Candida albicans</i>	CHEMILA	1:100	EN13697:2013	15 mins	> LOG 4

EN 13624 - Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area. Test method and requirements (phase 2, step 1)

Standard test organisms

Aspergillus Brasiliensis (niger), *Candida albicans*

Obligatory Lg reduction ≥ 4 in <60 minutes

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
<i>Candida albicans</i>	CHEMILA	1:50	EN13624 CLEAN	5 mins	> LOG 4
<i>Candida albicans</i>	CHEMILA	1:100	EN13624 CLEAN	15 mins	> LOG 4



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BACTERICIDAL ACTIVITY

EN 13727:2012 - Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of bactericidal activity in the medical area. Test method and requirements (phase 2, step 1)

Standard test organisms

Pseudomonas aeruginosa, *Staphylococcus aureus*, *Enterococcus hirae*

Test conditions

Clean conditions (0.3g/l bovine albumin)- Dirty conditions (3.0g/l bovine albumin)

Obligatory

Bacteria - Log reduction ≥ 4 in 5 minutes at 20°C

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
<i>Staphylococcus aureus</i> MRSA	CHEMILA	1:100	EN13697:2015	5 mins	> LOG 5

EN 13697 - 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 (phase 2, step 2)

Standard test organisms

BACTERIA - *Pseudomonas aeruginosa*, *Escherichia coli*, *Staphylococcus aureus*, *Enterococcus hirae* **Test**

conditions

Clean conditions (0.3g/l bovine albumin)- Dirty conditions (3.0g/l bovine albumin) Industry specific (must also pass under standard dirty conditions)

Obligatory

ORGANISM	LABORATORY	DILUTION	METHOD	CONTACT	RESULTS
<i>Enterococcus hirae</i>	BLUTEST	1:100	EN13697:2001 DIRTY	5 mins	> LOG 5
<i>Escherichia coli</i>	BLUTEST	1:100	EN13697:2001 DIRTY	5 mins	> LOG 5
<i>Pseudomonas aeruginosa</i>	BLUTEST	1:100	EN13697:2001 DIRTY	5 mins	> LOG 5
<i>Staphylococcus aureus</i>	BLUTEST	1:100	EN13697:2001 DIRTY	5 mins	> LOG 5
<i>Enterococcus hirae</i>	CHEMILA	1:100	EN13697:2015	5 mins	> LOG 4
<i>Escherichia coli</i>	CHEMILA	1:100	EN13697:2015	5 mins	> LOG 4
<i>Pseudomonas aeruginosa</i>	CHEMILA	1:100	EN13697:2015	5 mins	> LOG 4
<i>Staphylococcus aureus</i>	CHEMILA	1:100	EN13697:2015	5 mins	> LOG 4

DNA / RNA

HLD4 formulation is proven to denature / precipitate DNA / RNA at dilutions of 1:10 or 1:50 according to Cambridge University Technical Services

“Further to your query regarding the efficacy of Medimark Scientific Limited’s product HLD4, CUTS can report that at dilutions of HLD4 less than 1:100 (v/v)—1:20 or 1:50 for example—nucleic acids are precipitated immediately. For such dilutions (less than or equal to 1:100), the contact time for immersed solutions should be a few minutes at maximum. The product was **not** tested in aerosol form. However, it is likely that if the concentrations of HLD4 in an aerosol formulation is similar and the active ingredients are stable that it would behave similarly.”