

## Microbiological Efficacy Summary

Testing performed in accordance to European Standard EN 14885:2018

	ORGANISM	TEST NORM	TEST TYPE	CONDITIONS
SPORICIDAL	<i>Bacillus subtilis</i>	EN 13704	Suspension	Clean 1 and Dirty 1
	<i>Bacillus cereus</i>			
MYCOBACTERICIDAL	<i>Mycobacterium terrae</i>	EN 14563	Carrier	Clean 1 and Dirty 2
	<i>Mycobacterium avium</i>			
	<i>Mycobacterium terrae</i>	EN 14348	Suspension	Clean 1
	<i>Mycobacterium avium</i>			
VIRUCIDAL	Poliovirus Type 1	EN 14476	Suspension	Clean 1
	Adenovirus Type 5			
	Murine Norovirus			
FUNGICIDAL / YEASTICIDAL	<i>Candida albicans</i>	EN 16615	Surface with mechanical action	Clean 1
	<i>Candida albicans</i>	EN 13697	Surface	
	<i>Aspergillus brasiliensis</i>	EN 14562	Carrier	
	<i>Candida albicans</i>			
	<i>Aspergillus brasiliensis</i>	EN 13624	Suspension	
	<i>Candida albicans</i>			
BACTERICIDAL	<i>Staphylococcus aureus</i>	EN 16615	Surface with mechanical action	Clean 1
	<i>Enterococcus hirae</i>			
	<i>Pseudomonas aeruginosa</i>			
	<i>Enterococcus hirae</i>	EN 13697	Surface	
	<i>Staphylococcus aureus</i>			
	<i>Pseudomonas aeruginosa</i>			
	<i>Escherichia coli</i>	EN 14561	Carrier	
	<i>Staphylococcus aureus</i>			
	<i>Enterococcus hirae</i>			
	<i>Pseudomonas aeruginosa</i>	EN 13727	Suspension	
	<i>Staphylococcus aureus</i>			
	<i>Enterococcus hirae</i>			
	<i>Pseudomonas aeruginosa</i>			

# Additional Testing

<b>DNA / RNA</b>	<b>TEST METHOD</b>
	Polyacrylamide gel electrophoresis (PAGE)

	ORGANISM	TEST METHOD	TEST TYPE	CONDITIONS
<b>PROTOZOA</b>	<i>Acanthamoeba castellanii</i> cysts	Following the method of EN 13704	Suspension	Clean 1

<b>SPORES</b>	<i>Bacillus subtilis</i>	EN 17126	Suspension	Clean 1
	<i>Bacillus cereus</i>			
	<i>Clostridium difficile</i>	EN 13704	Suspension	Clean 1 and Dirty 1
	<i>Bacillus subtilis</i>	EN 14347	Suspension	Not applicable
	<i>Bacillus cereus</i>			
<i>Bacillus subtilis</i> var niger	Babb JR, Bradely CR & Ayliffe GAJ (J. of Hosp. Inf. 1980 1:63-75)	Suspension	Clean 1 and Dirty 1	

<b>MYCOBACTERIA</b>	<i>Mycobacterium avium</i>	DGHM	Carrier	Dirty 1
	<i>Mycobacterium terrae</i>			
	<i>Mycobacterium terrae</i>	Griffiths et al. Journal of Hospital Infection (1998)	Suspension	Clean 1 and Dirty 1

<b>VIRUSES</b>	Influenza A Virus (H1N1)	EN 14476	Suspension	Dirty 1
	Poliovirus Type 1	ASTM E-1053	Surface	Dirty 2
	Adenovirus Type 5			
	Hepatitis B Virus (HBV)			
	Herpes Simplex Virus Type 1			
	Human Immunodeficiency Virus (HIV)			
	Influenza A Virus (H1N1)	DVV/RKI	Suspension	Clean 2 and Dirty 3
	Poliovirus Type 1			
	Adenovirus Type 5			
	Murine Norovirus			
	Human Papillomavirus (using polyoma virus SV40 surrogate)			
	Vaccinia Virus	EN 16615	Surface with mechanical action	Clean 1
	Murine Norovirus			

	ORGANISM	TEST METHOD	TEST TYPE	CONDITIONS
FUNGI/YEAST	<i>Aspergillus brasiliensis</i>	EN 16615	Surface with mechanical action	Clean 1
	<i>Candida auris</i>	EN 14562	Carrier	
	<i>Fusarium solani</i>	EN 13624	Suspension	
	<i>Aspergillus flavus</i>			
	<i>Candida albicans</i>	DGHM	Carrier	Dirty 1

BACTERIA	<i>Staphylococcus aureus</i>	DGHM	Carrier	Dirty 1
	<i>Pseudomonas aeruginosa</i>			
	<i>Enterococcus hirae</i>			
	<i>Streptococcus pyogenes</i>	EN 16615	Surface with mechanical action	Clean 1
	Carbapenem Resistant Enterobacteriaceae (CRE) <i>Klebsiella pneumoniae</i>	EN 14561	Carrier	Clean 1
	Vancomycin Resistant Enterococci (VRE) <i>Enterococcus faecium</i>			
	<i>Neisseria gonorrhoeae</i>	EN 13727	Suspension	
	<i>Gardnerella vaginalis</i>			
	<i>Streptococcus agalactiae</i>			
	Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)			Clean 1 and Dirty 1

**Clean/Dirty Conditions Key:**

**Clean 1:** 0.3 g/l bovine albumin - **Clean 2:** Aqua bidest

**Dirty 1:** 3g/l bovine albumin + 3g/l blood erythrocytes - **Dirty 2:** 5% blood serum - **Dirty 3:** 10% fetal calf serum