Microbiological Efficacy Summary

Testing performed in accordance to European Standard EN 14885:2018 and the latest regulatory efficacy requirements.

	ORGANISM	TEST METHOD	TEST TYPE	CONDITIONS
SPORICIDAL	*Bacillus subtilis*	EN 17126	Suspension	Clean 1
	Bacillus cereus			
	Clostridioides difficile formerly *Clostridium difficile*			
MYCOBACTERICIDAL	*Mycobacterium terrae*	EN 14348	Suspension	Clean 1
	Mycobacterium avium			
VIRUCIDAL	Poliovirus Type 1	EN 14476	Suspension	Clean 1
	Adenovirus Type 5			
	Murine Norovirus			
FUNGICIDAL/ YEASTICIDAL	*Candida albicans*	EN 16615	Surface with mechanical action	Clean 1
	Aspergillus brasiliensis	EN 13624	Suspension	
	Candida albicans			
BACTERICIDAL	*Staphylococcus aureus*	EN 16615	Surface with mechanical action	Clean 1
	Enterococcus hirae			
	Pseudomonas aeruginosa			
	Staphylococcus aureus	EN 13727	Suspension	Clean 1 and Dirty 1
	Enterococcus hirae			
	Pseudomonas aeruginosa			

Additional Testing

	TEST METHOD
DAN / RNA	Polyacrylamide gel electrophoresis (PAGE)

	ORGANISM	TEST METHOD	TEST TYPE	CONDITIONS
PROTOZOA	*Acanthamoeba castellanii* cysts	Bespoke Testing	Suspension	Clean 1
SPORES	*Bacillus subtilis*	EN 13704	Suspension	Clean 1 and Dirty 1
	Bacillus cereus			
	Bacillus subtilis var niger	Babb JR, Bradely CR & Ayliffe GAJ (J. of Hosp. Inf. 1980 1:63-75)		Clean 1 and Dirty 1
MYCOBACTERIA	*Mycobacterium terrae*	EN 14563	Carrier	Clean 1 and Dirty 2
	Mycobacterium avium			
	Mycobacterium avium	DGHM	Carrier	Dirty 1
	Mycobacterium terrae			
	Mycobacterium terrae	Griffiths et al. Journal of Hospital Infection (1998)	Suspension	Clean 1 and Dirty 1
VIRUSES	SARS-CoV-2*	EN 14476	Suspension	Dirty 2
	Influenza A Virus (H1N1)		Suspension	Dirty 1
	Murine Norovirus	EN 16615	Surface with mechanical action	Clean 1
	Feline Calicivirus	ASTM E-1053	Surface	Dirty 2
	Poliovirus Type 1			
	Adenovirus Type 5			
	Hepatitis B Virus (HBV)			
	Herpes Simplex Virus Type 1			
	Human Immunodeficiency Virus (HIV)			
	Influenza A Virus (H1N1)			
	Adenovirus Type 5	DVV (2012)	Carrier	Clean 1
	Murine Norovirus			
	Parvovirus (using Minute Virus of Mice (MVM) surrogate)			
	Poliovirus Type 1	DVV/RKI (2014)	Suspension	Clean 2 and Dirty 3
	Adenovirus Type 5			
	Murine Norovirus			
	Human Papillomavirus (using Polyoma Virus SV40 surrogate)			
	Vaccinia Virus			
	Parvovirus (using Minute Virus of Mice (MVM) surrogate)			Dirty 3

	ORGANISM	TEST METHOD	TEST TYPE	CONDITIONS
FUNGI / YEAST	*Aspergillus brasiliensis*	EN 16615	Surface with mechanical action	Clean 1
	Candida albicans	EN 13697	Surface	
	Aspergillus brasiliensis	EN 14562	Carrier	
	Candida albicans			
	Candida auris			Dirty 1
	Fusarium solani	EN 13624	Suspension	Clean 1
	Aspergillus flavus			
	Candida albicans	AOAC Use Dilution Test	Carrier	Dirty 4
		DGHM	Carrier	Dirty 1
BACTERIA	*Proteus vulgaris*	EN 16615	Surface with mechanical action	Dirty 1
	Streptococcus pyogenes			Clean 1
	Neisseria gonorrhoeae			
	Gardnerella vaginalis			
	Streptococcus agalactiae			
	Staphylococcus aureus	DGHM	Carrier	Dirty 1
	Pseudomonas aeruginosa			
	Enterococcus hirae			
	Enterococcus hirae	EN 13697	Surface	Clean 1
	Staphylococcus aureus			
	Pseudomonas aeruginosa			
	Escherichia coli			
	Staphylococcus aureus	EN 14561	Carrier	Clean 1
	Enterococcus hirae			
	Pseudomonas aeruginosa			
	Carbapenem Resistant Enterobacteriaceae (CRE) *Klebsiella pneumoniae*			
	Vancomycin Resistant Enterococci (VRE) *Enterococcus faecium*			
	Methicillin-resistant *Staphylococcus aureus* (MRSA)			Dirty 4
	Multidrug-resistant *Acinetobacter baumannii* (MDRAB)			
	Extended Spectrum Beta-Lactamase *Klebsiella pneumoniae* (ESBL)			
	Methicillin-resistant *Staphylococcus aureus* (MRSA)	EN 13727	Suspension	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 - **Dirty 4:** 5% fetal calf serum

*A representative sample of Tristel chlorine dioxide chemistry has been tested in accordance with EN 14476:2013+A2:2019, at a concentration of 20 parts per million (ppm). JET has a chlorine dioxide concentration greater than 20ppm at the point of use.