

Tristel Duo™

for Ophthalmology

Microbiological Efficacy Summary

	Test norm	Test type	Organism	Log reduction required	Log reduction achieved	Laboratory	Clean or dirty	Contact time
Sporicidal	EN 13704	Suspension	<i>Bacillus cereus</i>	> 3 log	> 3 log	MGs	Clean 1	30 sec.
			<i>Clostridium difficile</i>	> 3 log	> 5.19 log	HIRL	Clean 1	
				> 3 log	> 5.19 log	HIRL	Dirty 1	
	Babb JR, Bradely CR & Ayliffe GAJ (J. of Hosp. Inf. 1980 1:63-75)	Suspension	<i>Bacillus subtilis var niger</i>	> 3 log	> 6.72 log	HIRL	Clean 1	
			<i>Bacillus subtilis var niger</i>	> 3 log	> 6.66 log	HIRL	Dirty 1	
	EN 14347	Suspension	<i>Bacillus subtilis</i>	> 4 log	> 4.58 log	IRM	N/A	
			<i>Bacillus cereus</i>	> 4 log	> 4.65 log	IRM	N/A	
			<i>Bacillus subtilis</i>	> 4 log	> 4.18 log	MGs	N/A	
<i>Bacillus cereus</i>			> 4 log	> 4.68 log	MGs	N/A		
Mycobactericidal	EN 14563	Carrier	<i>Mycobacterium avium</i>	> 4 log	> 5.2 log	Biotech Germande	Clean 1	30 sec.
			<i>Mycobacterium terrae</i> (Surrogate for <i>Mycobacterium tuberculosis</i>)	> 4 log	> 4.9 log	Biotech Germande	Clean 1	
	EN 14348	Suspension	<i>Mycobacterium avium</i>	> 4 log	> 6.63 log	MGs	Clean 1	
	DGHM Methodology	Carrier	<i>Mycobacterium avium</i>	> 4 log	> 7.76 log	Hygiene Nord GMBH	Dirty 1	
			<i>Mycobacterium terrae</i> (Surrogate for <i>Mycobacterium tuberculosis</i>)	> 4 log	> 7.23 log	Hygiene Nord GMBH	Dirty 1	
	Griffiths et al. Journal of Hospital Infection (1998)	Suspension	<i>Mycobacterium terrae</i> (Surrogate for <i>Mycobacterium tuberculosis</i>)	> 5 log	> 5.82 log	HIRL	Clean 1	
			> 5 log	> 5.69 log	HIRL	Dirty 1		
Virucidal	EN 14476	Suspension	Poliovirus T1	> 4 log	4.26 log	BluScientific	Clean 2	30 sec.
			Adenovirus T5	> 4 log	4.59 log	BluScientific	Clean 2	
			Murine Norovirus	> 4 log	4.17 log	Eurofins	Clean 1	
			Influenza (H1N1)	> 4 log	4.50 log	Eurofins	Dirty 1	
	DVV and RKI	Suspension	Poliovirus T1	> 4 log	> 4.75 log	Mikrolab GMBH	Clean 3	
				> 4 log	> 4.75 log	Mikrolab GMBH	Dirty 2	
			Adenovirus T5	> 4 log	> 6.25 log	Mikrolab GMBH	Clean 3	
				> 4 log	> 6.19 log	Mikrolab GMBH	Dirty 2	
			Polyoma Virus SV40 (HPV Surrogate)	> 4 log	> 5.50 log	Mikrolab GMBH	Clean 3	
				> 4 log	> 5.32 log	Mikrolab GMBH	Dirty 2	
			Vaccinia Virus	> 4 log	> 5.00 log	Mikrolab GMBH	Clean 3	
				> 4 log	> 5.38 log	Mikrolab GMBH	Dirty 2	
Fungicidal/Yeasticidal	EN 14562	Carrier	<i>Candida albicans</i>	> 4 log	> 4.4 log	Biotech Germande	Clean 1	30 sec.
			<i>Aspergillus brasiliensis</i>	> 4 log	> 4.36 log	Hygiene Nord GMBH	Clean 1	
			<i>Candida albicans</i>	> 4 log	> 4.08 log	Hygiene Nord GMBH	Clean 1	
	EN 13624	Suspension	<i>Candida albicans</i>	> 4 log	> 4.45 log	MGs	Clean 1	
				> 4 log	> 4.51 log	Hygiene Nord GMBH	Clean 1	
			<i>Aspergillus brasiliensis</i>	> 4 log	> 4.23 log	Hygiene Nord GMBH	Clean 1	
				> 4 log	> 4.33 log	MGs	Clean 1	
			<i>Fusarium solani</i>	> 4 log	> 4.0 log	Huddersfield	Clean 1	
			<i>Aspergillus flavus</i>	> 4 log	> 4.0 log	Huddersfield	Clean 1	
	DGHM Methodology	Carrier	<i>Candida albicans</i>	> 4 log	> 6.47 log	Hygiene Nord GMBH	Dirty 1	

	Test norm	Test type	Organism	Log reduction required	Log reduction achieved	Laboratory	Clean or dirty	Contact time
Bactericidal	EN 14561	Carrier	<i>Staphylococcus aureus</i>	> 5 log	> 5.8 log	Biotech Germande	Clean 1	30 sec.
			<i>Pseudomonas aeruginosa</i>	> 5 log	> 5.5 log	Biotech Germande	Clean 1	
			<i>Enterococcus hirae</i>	> 5 log	> 5.6 log	Biotech Germande	Clean 1	
			<i>Klebsiella pneumoniae</i> Carbapenemase (KPC) Enterobacteriaceae	> 5 log	> 5.57 log	MGS	Clean 1	
			<i>Vancomycin-resistant</i> <i>Enterococcus faecium</i>	> 5 log	> 5.65 log	MGS	Clean 1	
	EN 13727	Suspension	<i>Staphylococcus aureus</i>	> 5 log	> 6.49 log	HIRL	Clean 1	
				> 5 log	> 6.49 log	HIRL	Dirty 1	
			<i>Pseudomonas aeruginosa</i>	> 5 log	> 6.65 log	HIRL	Clean 1	
				> 5 log	> 6.65 log	HIRL	Dirty 1	
			<i>Enterococcus hirae</i>	> 5 log	> 6.59 log	HIRL	Clean 1	
				> 5 log	> 6.59 log	HIRL	Dirty 1	
			<i>Staphylococcus aureus</i>	> 5 log	> 5.36 log	MGS	Clean 1	
			<i>Pseudomonas aeruginosa</i>	> 5 log	> 5.33 log	MGS	Clean 1	
			<i>Enterococcus hirae</i>	> 5 log	> 5.36 log	MGS	Clean 1	
			<i>Staphylococcus aureus</i>	> 5 log	> 5.34 log	MGS	Clean 1	
				> 5 log	> 5.34 log	MGS	Dirty 1	
			<i>Pseudomonas aeruginosa</i>	> 5 log	> 5.47 log	MGS	Clean 1	
				> 5 log	> 5.47 log	MGS	Dirty 1	
			<i>Enterococcus hirae</i>	> 5 log	> 5.43 log	MGS	Clean 1	
				> 5 log	> 5.43 log	MGS	Dirty 1	
			<i>Staphylococcus aureus</i>	> 5 log	> 5.18 log	Hygiene Nord GMBH	Clean 1	
			<i>Pseudomonas aeruginosa</i>	> 5 log	> 5.54 log	Hygiene Nord GMBH	Clean 1	
			<i>Enterococcus hirae</i>	> 5 log	> 5.27 log	Hygiene Nord GMBH	Clean 1	
			Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	> 5 log	> 5.34 log	MGS	Clean 1	
				> 5 log	> 5.34 log	MGS	Dirty 1	
	<i>Neisseria gonorrhoeae</i>	> 5 log	> 5.37 log	Huddersfield	Clean 1			
	<i>Gardnerella vaginalis</i>	> 5 log	> 5.39 log	Huddersfield	Clean 1			
	<i>Streptococcus agalactiae</i>	> 5 log	> 5.43 log	Huddersfield	Clean 1			
	DGHM Methodology	Carrier	<i>Pseudomonas aeruginosa</i>	> 5 log	> 7.23 log	Hygiene Nord GMBH	Dirty 1	
			<i>Staphylococcus aureus</i>	> 5 log	> 7.30 log	Hygiene Nord GMBH	Dirty 1	
			<i>Enterococcus hirae</i>	> 5 log	> 7.52 log	Hygiene Nord GMBH	Dirty 1	

Bespoke Testing

Test type	Organism	Log reduction required	Log reduction achieved	Laboratory	Clean or dirty	Contact time
Suspension	<i>Acanthamoeba castellanii</i> cysts (one of the causative organisms of <i>Acanthamoeba</i> keratitis)	N/A	> 3.0 log	BluTest	Clean 1	30 sec.

Clean/Dirty Conditions Key

Clean 1: 0.3 g/L bovine albumin
Clean 2: 0.6 g/L foetal bovine serum + 0.03% bovine serum albumin
Clean 3: Aqua bidest

Dirty 1: 3.0 g/L bovine albumin + 3 ml/l sheep erythrocytes
Dirty 2: 10% Fetal Calf Serum