Test Report: EN 1276:2019 Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas — Test method and requirements (phase 2, step 1)

Test Laboratory	**BluTest Laboratories Ltd** 5 Robroyston Oval, Nova Business Park, Glasgow G33 1AP
Identification of sample	
Name of the product	**Surface Disinfectant Concentrate**
Batch number	K5093
Client	Fluid science Limited
Client address	Unit 5 Pride Point, Ashcroft Road, Knowsley Ind. Park, Liverpool L33 7TW
Project code	BT-GEN-03
Date of delivery	16 April 2020
Storage conditions	Ambient
Active substances	L-lactic acid
Test Method and Neutralisation	
Method	Filtration neutralisation
Experimental Conditions	
Period of analysis	13 May 2020 to 22 May 2020
Product diluent used	Sterile synthetic hard water
Product test concentrations	**10.0% v/v; 5.0% v/v; 2.5% v/v**
Appearance product dilutions	No changes noted
Appearance in test mixture	No changes noted
Contact time	t = 5 mins ± 10 s
Test temperature	20°C ± 1°C
Interfering substance	3.0g/l bovine albumin
Temperature of incubation	37°C ± 1°C
Identification of strains	*Staphylococcus aureus* ATCC 6538 *Enterococcus hirae* ATCC 10541 *Pseudomonas aeruginosa* ATCC 15442 *Escherichia coli* ATCC 10536

EN 1276:2009 Results

Results for the efficacy of **Surface Disinfectant** Concentrate from Fluid Science Ltd under Dirty conditions									
Test organisms	**Validation test**				**Bacterial Test Suspension (N)**		**Test procedure at concentration % (V/V)**		
	Bacterial Suspension (Nv)	**Experimental Conditions (A)**	**Filtration Control (B)**	**Filtration Test Control (C)**			2.5%	5.0%	10.0%
Pseudomonas	*V* c: 80 ; 94	Vc: 62 ; 64	Vc: 51 ; 60	Vc: 58 ; 79	10^{-6}:	>330 ; >330	Vc	30 ; 6	0 ; 0	0 ; 0
aeruginosa					10^{-7}:	40 ; 36				
					N:	3.80E+08	Na	1.80E+02	<1.40E+02	<1.40E+02
ATCC 15442	*N* v: 8.70E+02	A: 6.30E+01	B: 5.55E+01	C: 6.85E+01	Q:	n/a	R	>10(5)	>10(5)	>10(5)
Validation	30 ≤ Nv_0 ≤ 160 ?	A ≥ 0.5 x Nv_0 ?	B ≥ 0.5 x Nv_0 ?	C ≥ 0.5 x Nv_0?	7.17≤ log N_0 ≤7.70?		Test is valid		
	yes	yes	yes	yes	yes				
Escherichia coli	*V* c: 80 ; 73	Vc: 79 ; 82	Vc: 69 ; 80	Vc: 84 ; 89	10^{-6}:	>330 ; >330	Vc	0 ; 0	0 ; 0	0 ; 0
					10^{-7}:	29 ; 39				
					N:	3.40E+08	Na	<1.40E+02	<1.40E+02	<1.40E+02
ATCC 10536	*N* v: 7.65E+02	A: 8.05E+01	B: 7.45E+01	C: 8.65E+01	Q:	n/a	R	>10(5)	>10(5)	>10(5)
Validation	30 ≤ Nv_0 ≤ 160 ?	A ≥ 0.5 x Nv_0 ?	B ≥ 0.5 x Nv_0 ?	C ≥ 0.5 x Nv_0?	7.17≤ log N0 ≤7.70?		Test is valid		
	yes	yes	yes	yes	yes				
Staphylococcus	*V* c: 62 ; 51	Vc: 49 ; 51	Vc: 55 ; 38	Vc: 51 ; 52	10^{-6}:	>330 ; >330	Vc	3 ; 5	0 ; 0	0 ; 0
aureus					10^{-7}:	26 ; 17				
					N:	2.15E+08	Na	<1.40E+02	<1.40E+02	<1.40E+02
ATCC 6538	*N* v: 5.65E+02	A: 5.00E+01	B: 4.65E+01	C: 5.15E+01	Q:	n/a	R	>10(5)	>10(5)	>10(5)
Validation	30 ≤ Nv_0 ≤ 160 ?	A ≥ 0.5 x Nv_0 ?	B ≥ 0.5 x Nv_0 ?	C ≥ 0.5 x Nv_0?	7.17≤ log N0 ≤7.70?		Test is valid		
	yes	yes	yes	yes	yes				
Enterococcus	*V* c: 65 ; 68	Vc: 43 ; 84	Vc: 47 ; 49	Vc: 53 ; 52	10^{-6}:	>330 ; >330	Vc	9 ; 1	1 ; 0	0 ; 0
hirae					10^{-7}:	22 ; 26				
					N:	2.40E+08	Na	<1.40E+02	<1.40E+02	<1.40E+02
ATCC 10541	*N* v: 6.65E+02	A: 6.35E+01	B: 4.80E+01	C: 5.25E+01	Q:	n/a	R	>10(5)	>10(5)	>10(5)
Validation	30 ≤ Nv_0 ≤ 160 ?	A ≥ 0.5 x Nv_0 ?	B ≥ 0.5 x Nv_0 ?	C ≥ 0.5 x Nv_0?	7.17≤ log N0 ≤7.70?		Test is valid		
	yes	yes	yes	yes	yes				

Please note: the upper limit for counting bacterial plates is 330 cfu. Enter as >330. For filter membranes, this is 165 cfu. Enter as >165.

Definitions: Vc = viable count; N = number of cfu/ml in the bacterial test suspension; Q = quotient of control of weighted mean counts; Nv = number of cfu/ml in the bacterial validation suspension; A = number of cfu/ml in the experimental conditions validation; B = number of cfu/ml in the filtration control; C = number of cfu/ml in the membrane-filtration neutralisation method validation; Na = number of cfu/ml in test mixture after contact time; R = reduction in viability (Log10)

Conclusion

According to EN 1276:2019, **Surface Disinfectant Concentrate POSSESSES BACTERICIDAL** activity at a concentration of **2.5% v/v** as tested after **5 MINUTES** at **20°C** under **DIRTY** conditions (3.0 g/l bovine albumin) against *Pseudomonas aeruginosa* ATCC 15442*, Escherichia coli* ATCC 10536, *Staphylococcus aureus* ATCC 6538 and *Enterococcus hirae* ATCC 8043.

Authorised signatory

Dr Chris Woodall, Director
BluTest Laboratories Ltd
Glasgow, UK.
Date: 27 MAY 2020

UKAS TESTING
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Expanded Uncertainty of Measurement U = ± 0.0044 logs

DISCLAIMER

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