Abbott Analytical

Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Sample(s):	One sample of Lavisan		
Received from:	GHS Direct Ltd Unit 2, Cambria Close, Charfleets Industrial Estate, Canvey Island, SS8 0JX		
Date received:	22 May 2013	**Date tested:**	22 May 2013
Certificate no:	13E.131SB20.GHS	**Certificate date:**	24 May 2013*
Sample ref:	13E/131	**Page:**	1 of 2
Analysis required:	EN 13697:2001, 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)		

Product stored at:	Room temperature
Active substance:	Not declared
Test conditions:	Dirty
Interfering substance:	3.0g/l bovine albumin
Product test concentration:	1:120 v/v
Product diluent used during test:	Sterile hard water 300mg/l $CaCO_3$
Appearance of product (dilution):	Clear, colourless solution
Contact time:	5 minutes
Test temperature:	20°C ± 0.5°C
Neutralising solution:	3% Polysorbate 80, 3g/l Lecithin, 1g/l L-histidine, 1g/l L-cysteine
Incubation temperature:	37°C ± 1°C
Identification of bacterial strain(s) used:	*Pseudomonas aeruginosa* ATCC 15442 *Escherichia coli* NCTC 10418 *Staphylococcus aureus* NCTC 10788 *Enterococcus hirae* NCIMB 8192

* Re-issued 23 September 2015 with amended product name.

D C Watson BSc,CBiol,MSB,MIFST,ACIEHO

Unit 2, Hickmans Road,
Birkenhead, CH41 1JH,
United Kingdom

Tel: +44 (0)151 324 1276
email: enqs@abbottanalytical.co.uk
www.abbottanalytical.co.uk

Test results:

Test Organism		*Pseudomonas aeruginosa*		*Escherichia coli*		*Staphylococcus aureus*		*Enterococcus hirae*	
Test Suspension	10^{-6}	Vc1 221	Vc2 256	Vc1 293	Vc2 243	Vc1 238	Vc2 272	Vc1 222	Vc2 241
	10^{-7}	Vc1 22	Vc2 28	Vc1 28	Vc2 32	Vc1 25	Vc2 30	Vc1 19	Vc2 25
(N = lg 0.05ml)		N = 7.08		N = 7.13		N = 7.11		N = 7.06	
Toxicity Control	10^{-4}	Vc1 206	Vc2 232	Vc1 270	Vc2 232	Vc1 228	Vc2 266	Vc1 217	Vc2 255
(NC = lg 10ml)		NC = 7.34 N - NC ≤ 2		NC = 7.40 N - NC ≤ 2		NC = 7.39 N - NC ≤ 2		NC = 7.37 N - NC ≤ 2	
Dilution Control	10^{-4}	Vc1 230	Vc2 204	Vc1 264	Vc2 250	Vc1 238	Vc2 254	Vc1 204	Vc2 270
(NT = lg 10ml)		NT = 7.34 NC - NT ≤ ±0.3		NT = 7.41 NC - NT ≤ ±0.3		NT = 7.39 NC - NT ≤ ±0.3		NT = 7.37 NC - NT ≤ ±0.3	
Water Control	10^{-4}	Vc1 235	Vc2 272	Vc1 266	Vc2 215	Vc1 210	Vc2 248	Vc1 202	Vc2 194
	10^{-5}	Vc1 25	Vc2 31	Vc1 28	Vc2 25	Vc1 20	Vc2 23	Vc1 24	Vc2 24
(Nc = lg 10ml)		Nc = 7.40		Nc = 7.38		Nc = 7.36		Nc = 7.30	
Results	10^{0}	Vc1 234	Vc2 261	Vc1 205	Vc2 160	Vc1 0	Vc2 0	Vc1 0	Vc2 0
	10^{-1}	Vc1 29	Vc2 33	Vc1 23	Vc2 27	Vc1 0	Vc2 0	Vc1 0	Vc2 0
(Nd = lg 10ml) (ME = Nc – Nd)		Nd = 3.39 ME = 4.01		Nd = 3.26 ME = 4.12		Nd < 0.70 ME > 6.66		Nd < 0.70 ME > 6.60	
Pass: ME ≥ 4		PASS		PASS		PASS		PASS	

N = lg of cfu/0.05ml of test suspension
Nd = lg of cfu per test surface
Nc = lg of cfu per control surface
ME = microbial effect

Requirements & Conclusion:

This sample of Lavisan, when diluted to 1:120 v/v, passes the requirements of EN 13697:2001 for bactericidal activity in 5 minutes at 20°C under dirty conditions against all of the reference organisms detailed.

D C Watson BSc,CBiol,MSB,MIFST,ACIEHO

Unit 2, Hickmans Road,
Birkenhead, CH41 1JH,
United Kingdom

Tel: +44 (0)151 324 1276
email: enqs@abbottanalytical.co.uk
www.abbottanalytical.co.uk