

Microbiological Report

RM-0E82

22 May 2020

EVALUATION OF POWER MAXED HYGIENE ALCOHOL HAND SPRAY [PMAHS500] IN ACCORDANCE WITH BS EN 1276:2019

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signed 
on behalf of Donnington Laboratories Ltd

date 26/05/2020

For:
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For:	Steve Harrison	Company:	Automotive Brands
By:	John Reed	Date:	22/05/2020
Rept No:	RM-0E82	EVALUATION OF POWER MAXED HYGIENE ALCOHOL HAND SPRAY [PMAHS500] IN ACCORDANCE WITH BS EN 1276:2019	

Sample details:

DLL ref	Description	Client Ref (Lot)
M-0E82-1	Power Maxed Hygiene Alcohol Hand Spray	PMAHS500 Lot 090420/09/04/23
<i>Active system: 70% Ethyl Alcohol</i>		

Client:**Automotive Brands****Date received:**

06/05/2020

Date of test:

18 - 20/05/2020

Storage conditions:

18 – 20°C (ambient)

Test method:

BS EN 1276: 2019 - *Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants & antiseptics used in food, industrial, domestic and institutional areas – Test method and requirements (phase2/step1).*

Test performed under conditions simulating light and heavy organic soil.

Test organism(s):

Pseudomonas aeruginosa	ATCC 15442	(PA)
Staphylococcus aureus	ATCC 6538	(SA)
Escherichia coli	ATCC 10536	(EC)
Enterococcus hirae	ATCC 10541	(EH)

Organisms derived from Selectrol discs and maintained on Tryptic Soy Agar slopes. Suspensions for experimental purposes prepared from 18h/37°C plate cultures on Tryptic Soy Agar (Oxoid).

Suspending medium:

Maximum Recovery Diluent (Oxoid)

Interfering substances:

0.3% and 3.0% bovine serum albumen Cohn Factor V

Test product concentration:

Neat (80% in test mixture)

Contact time(s):

60sec (±5s)

Test temperature:

19 - 21°C

Neutralising diluent:

D/E neutralizing broth (Oxoid).

Bacterial enumeration:

Tryptone Soy Agar without additional neutralizer(s). Pour plates (1ml) prepared in duplicate at each dilution. Plates incubated aerobically at 37±1°C for 24±2h and re-examined after a further 24±2h incubation at 37±1°C.

Validation:

Performed in accordance with BS EN 1276 sections 5.5.2.3 - 5.5.2.6.

Test product performance:
[A] Concentration: Contact time 60s±5s: 0.3% albumin:

Test Organism	Inoculum level cfu/ml	Recovery after 60s contact time	cfu/ml recovered	Log reduction factor (R)	Log reduction factor ≥ 5.00	% Reduction
PA	2.64X10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.24	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				
SA	2.31x10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.19	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				
EC	2.15x10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.16	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				
EH	2.10x10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.15	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				

[B] Concentration: Contact time 60s±5s: 3.0% albumin:

Test Organism	Inoculum level cfu/ml	Recovery after 60s contact time	cfu/ml recovered	Log reduction factor	Log reduction factor ≥ 5.00	% Reduction
PA	2.64X10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.24	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				
SA	2.31x10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.19	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				
EC	2.15x10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.16	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				
EH	2.10x10e07	10 ⁻¹ : 0, 0	<1.50x10e2	>5.15	Pass	>99.99
		10 ⁻² : 0, 0				
		10 ⁻³ : 0, 0				

[C] Experimental validation:

Neutraliser toxicity	Test strain	Validation suspension cfu/ml (Nv)	Neutraliser toxicity control cfu/ml (B)	B \geq 0.05Nv
	PA	2.64x10e03	2.95x10e02	complies
	SA	2.31x10e03	2.06x10e02	complies
	EC	2.15x10e03	2.05x10e02	complies
	EH	2.10x10e03	2.22x10e02	complies

Dilution neutralisation	Test strain	Validation suspension cfu/ml (Nv)	Experimental conditions control cfu/ml (A)	A \geq 0.05Nv
	PA	2.64x10e03	2.71x10e02	complies
	SA	2.31x10e03	2.16x10e02	complies
	EC	2.15x10e03	1.87x10e02	complies
	EH	2.10x10e03	2.23x10e02	complies

Interpretation of results:

Pass: product achieves a reduction in viability of $\geq 1.0 \times 10^5$ (log reduction factor of ≥ 5.00) within 60 sec when the test organisms are Pseudomonas aeruginosa ATCC 15442, Escherichia coli ATCC 10536, Staphylococcus aureus ATCC 6538 and Enterococcus hirae ATCC 10541.

Fail: product fails to achieve a reduction in viability of $\geq 1.0 \times 10^5$ (log reduction factor of < 5.00) within 60 sec when the test organisms are Pseudomonas aeruginosa ATCC 15442, Escherichia coli ATCC 10536, Staphylococcus aureus ATCC 6538 and Enterococcus hirae ATCC 10541.

Summary and Conclusion: Power Maxed Hygiene Alcohol Hand Spray [PMAHS500 Lot 090420 / 09/04/23]			
Test strain	Test concentration: Neat (80% in test mixture)		BS EN 1276: 2019 ** Test method and requirements (phase2/step1)
	Contact time: 60 \pm 5s		
	0.3g/l albumin	3.0g/l albumin	
Pseudomonas aeruginosa ATCC 15442	>5.24 (Pass)	>5.24 (Pass)	Passes
Staphylococcus aureus ATCC 6538	>5.19 (Pass)	>5.19 (Pass)	
Escherichia coli ATCC 10536	>5.16 (Pass)	>5.16 (Pass)	
Enterococcus hirae ATCC 10541	>5.15 (Pass)	>5.15 (Pass)	
** Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants & antiseptics used in food, industrial, domestic and institutional areas			