TEST REPORT: 7191235080-CHM20-02-RC

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SUBJECT

Antibacterial Activity Evaluation

CLIENT

Nila Singapore Pte Ltd
24 Sin Ming Lane
#05-103 Midview City
Singapore 573970

Attn : Janet Tan

SAMPLE SUBMISSION DATE/ TEST DATE

18 Mar 2020 / 25 Mar 2020

DESCRIPTION OF SAMPLE

One sample labelled as follows was submitted.

Product: Shield Disinfecting Spray

METHOD OF TEST

BS EN 1040 : 2005

"Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of basic bactericidal activity of chemical disinfectants and antiseptics – Test method and requirements (Phase 1)".

The test microorganisms used were :

Pseudomonas aeruginosa (ATCC 15442)
Staphylococcus aureus (ATCC 6538)

Dilution tested : Neat
Contact time : 5 minutes
Neutralization method: DE Broth Neutralization
Test temperature: 20±1°C
Incubation temperature: 36±1°C

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RESULTS

Product : Shield Disinfecting Spray

Validation and controls

Controls	Validation Suspension (Nv_0)	$30<Nv_0<160$ (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C ≥ 0.5 x Nv_0 (Pass / Fail)
Pseudomonas aeruginosa (ATCC 15442)	33	Pass	N.A.	34	60	Pass

Test Microorganism : *Pseudomonas aeruginosa* (ATCC 15442)

Contact Time / Concentration	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log_{10}	CFU per ml	Log_{10}		
5 minutes Neat	19 000 000	7.28	Less than 10	Less than 1	More than 6.28	More than 99.99994

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RESULTS (*cont'd*)

Product : Shield Disinfecting Spray

Validation and controls

Controls	Validation Suspension (Nv_0)	$30<Nv_0<160$ (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C $\geq 0.5 \times Nv_0$ (Pass / Fail)
Staphylococcus aureus (ATCC 6538)	44	Pass	N.A.	57	48	Pass

Test Microorganism : *Staphylococcus aureus* (ATCC 6538)

Contact Time / Concentration	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log_{10}	CFU per ml	Log_{10}		
5 minutes						
Neat	20 000 000	7.30	Less than 10	Less than 1	More than 6.30	More than 99.99995

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Remarks :

The product shall be deemed to have passed the test if it demonstrates a **5 Log reduction or more** (at least >99.999% kill) in viability within 5 minutes or less under the conditions defined by this test when the test organisms are *Pseudomonas aeruginosa* and *Staphylococcus aureus*.

This test method evaluates the basic bactericidal activity of chemical disinfectants with no specific application. It does not evaluate the activity of a product for an intended use. More specific test methods are used for further assessment of the efficacy of chemical disinfectants and antiseptics for a defined purpose.

The above test results relate to the sample as received.

MS CHUA XINNI
HIGHER TECHNICAL EXECUTIVE

MS TI HUI EN
MICROBIOLOGIST
MICROBIOLOGY
CHEMICAL & MATERIALS

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July 2011