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Client's Ref: Email: Randy.CHIN@tuv-sud-psb.sg

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SUBJECT

Antimicrobial Activity Evaluation

CLIENT

DUPREX Singapore Pte Ltd Blk 5047 Ang Mo Kio Industrial Park 2 #01-607 Singapore 569550

Attn: Bernard Yio

SAMPLE SUBMISSION DATE/TEST DATE

30 Nov 2015 / 09 Dec 2015

DESCRIPTION OF SAMPLE

One liquid sample labelled as "Germicidal Concentrate" was submitted.

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:

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

Dilution tested : Neat Contact time : 5 minutes



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3 Science Park Drive, #04-01/05
The Franklin, Singapore 118223

13 JAN 2016



RESULTS

Product Name : "Germicidal Concentrate"

Test Microorganism : Staphylococcus aureus (ATCC 6538)

Concentration / Contact Time	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of
	CFU per ml	Log ₁₀	CFU per ml	Log ₁₀		Test Microorganism
Neat	- /2	()				
5 minutes	73 000 000	7.86	Less than 10	Less than 1	More than 6.86	More than 99.99999

Test Microorganism : Pseudomonas aeruginosa (ATCC 15442)

Concentration / Contact Time	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		rest Microorganism
Neat		1/ 0	PTD 4			
5 minutes	72 000 000	7.86	Less than 10	Less than 1	More than 6.86	More than 99.99999

13 JAN 2016



Remarks:

MS AW HWEE YING

HIGHER TECHNICAL EXECUTIVE

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 *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

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.

MR RANDY CHIN KOK FEI
ASSISTANT PRODUCT MANAGER

MICROBIOLOGY CHEMICAL & MATERIALS



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