

TEST REPORT: 7191238730-CHM20-02-RC

Date: 15 JUN 2020

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Client's Ref:

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SUBJECT

Antifungal Activity Evaluation

CLIENT

Magna International Pte Ltd
10H Enterprise Road
Singapore 629834

SAMPLE SUBMISSION DATE/ TEST DATE

02 Jun 2020 / 04 Jun 2020

DESCRIPTION OF SAMPLE

One sample labelled as follows was submitted.

Product: Legionella-X Viral Kleen fortified with Silver and Copper Nanoparticles, for disinfecting face shield, goggles and all types plastic shield. Sample has been diluted with 1:25 parts of tap water

METHOD OF TEST

BS EN 1275 : 2005

“Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of basic fungicidal or basic yeasticidal activity of chemical disinfectants and antiseptics – Test method and requirements (Phase 1)”.

The test microorganisms used were :

Candida albicans (ATCC 10231)
Aspergillus niger (ATCC 16404)

Dilution tested : Neat
Contact time : 15 minutes
Neutralization method: D/E Neutralization broth
Test temperature: 20±1°C
Incubation temperature: 30±1°C



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RESULTS

Product : Legionella-X Viral Kleen fortified with Silver and Copper Nanoparticles, for disinfecting face shield, goggles and all types plastic shield.
Sample has been diluted with 1:25 parts of tap water.

Validation and controls

Controls	Validation Suspension (N _{v0})	30<N _{v0} <160 (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C ≥0.5 x N _{v0} (Pass / Fail)
<i>Candida albicans</i> (ATCC 10231)	60	Pass	N.A.	70	66	Pass

Test Microorganism : *Candida albicans* (ATCC 10231)

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		
15 minutes Neat	2 800 000	6.45	Less than 10	Less than 1	More than 5.45	More than 99.9996

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RESULTS (cont'd)

Product : Legionella-X Viral Kleen fortified with Silver and Copper Nanoparticles, for disinfecting face shield, goggles and all types plastic shield.
Sample has been diluted with 1:25 parts of tap water.

Validation and controls

Controls	Validation Suspension (N _{v0})	30<N _{v0} <160 (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C ≥0.5 x N _{v0} (Pass / Fail)
<i>Aspergillus niger</i> (ATCC 16404)	45	Pass	N.A.	35	35	Pass

Test Microorganism : *Aspergillus niger* (ATCC 16404)

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		
15 minutes Neat	1 800 000	6.26	490 000	5.69	0.57	72.78

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Remarks :

The product shall be deemed to have passed the test for fungicidal activity if it demonstrates a 4 Log reduction or more (at least >99.99%) in viability within 15 minutes under the conditions defined by this test using mould as test organisms.

The product shall be deemed to have passed the test for yeasticidal activity if it demonstrates a 4 Log reduction or more (at least >99.99%) in viability within 15 minutes under the conditions defined by this test using yeasts as test organisms.

This test method evaluates the basic fungicidal and yeasticidal 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.

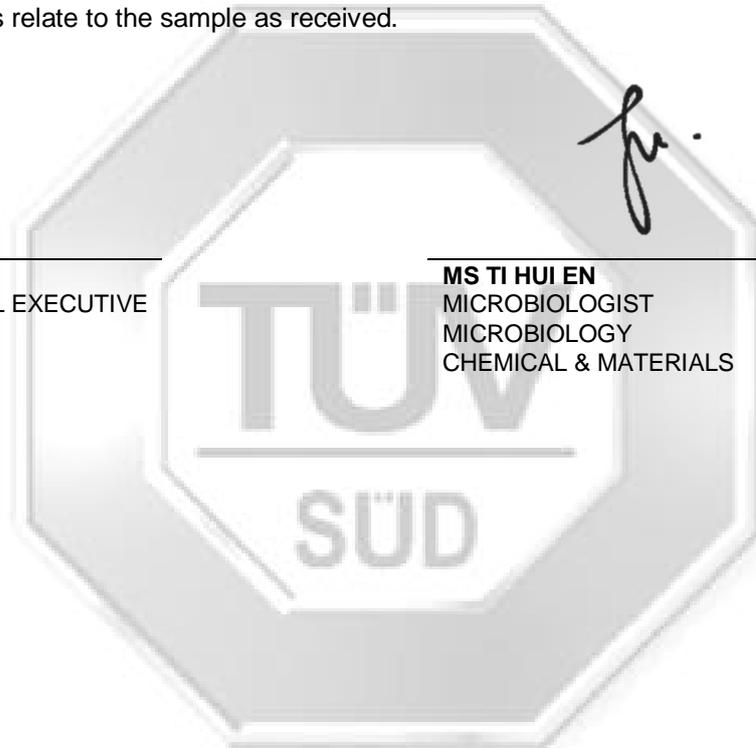
The above test results relate to the sample as received.

A handwritten signature in black ink, appearing to be 'CX'.

MS CHUA XINNI
HIGHER TECHNICAL EXECUTIVE

A handwritten signature in black ink, appearing to be 'TH'.

MS TI HUI EN
MICROBIOLOGIST
MICROBIOLOGY
CHEMICAL & MATERIALS



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July 2011

