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SUBJECT

Antimicrobial Activity Evaluation

CLIENT

Excelsia Technologies Sdn Bhd Unit 103, Blk C, Damansara Intan, 47400 PJ, Selangor, Malaysia

SAMPLE SUBMISSION DATE/ TEST DATE

18 Jan 2018 / 02 Feb 2018

DESCRIPTION OF SAMPLE

One liquid sample labelled as below was submitted.

Product: Bactakleen Ultra Mist Solution (Herbal Formula)

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

Neutralization method: D/E Neutralization Broth

Test temperature: 20±1°C Incubation temperature: 36±1°C



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RESULTS

Product : Bactakleen Ultra Mist Solution (Herbal Formula)

Validation and controls

| Controls | Validation Suspension (Nv ₀) | 30 <nv<sub>0<160 (Pass / Fail)</nv<sub> | Neutralizer 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) | 45 | Pass | N.A. | 50 | 45 | 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 |
|------------------------------|--|-------------------|---|-------------------|----------------|--|
| Concentration | CFU per ml | Log ₁₀ | CFU per ml | Log ₁₀ | | rest Microorganism |
| 5 minutes | | | | | | |
| Neat | 47 000 000 | 7.67 | Less than 10 | Less than 1 | More than 6.67 | More than 99.99998 |

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RESULTS (Cont')

Product : Bactakleen Ultra Mist Solution (Herbal Formula)

Validation and controls

| Controls | Validation Suspension (Nv ₀) | 30 <nv<sub>0<160 (Pass / Fail)</nv<sub> | Neutralizer control (A) | Neutralizer control (B) | Method Validation (C) Product Concentration: Neat | B and C ≥0.5 x Nv₀ (Pass / Fail) |
|--------------------------------------|---|--|-------------------------|-------------------------|---|-------------------------------------|
| Staphylococcus aureus (ATCC 6538) | 96 | Pass | N.A. | 104 | 104 | Pass |

Test Microorganism : Staphylococcus aureus (ATCC 6538)

| Contact Time / Concentration | Initial Count of Test Microorganism per ml of Test Mixture | | Count of Su Microorgan | | Log Reduction | Percentage Kill of |
|------------------------------|--|-------------------|---------------------------|-------------------|---------------|--------------------|
| | CFU per ml | Log ₁₀ | CFU per ml | Log ₁₀ | | Test Microorganism |
| 5 minutes | | | - I/V // I | | | |
| Neat | 46 000 000 | 7.66 | 300 | 2.48 | 5.19 | 99.9993 |



20 FEB 2018



Remarks:

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 AW HWEE YING

HIGHER TECHNICAL EXECUTIVE

MR RANDY CHIN KOK FEI PRODUCT MANAGER MICROBIOLOGY

CHEMICAL & MATERIALS







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