



Abbott Analytical

Consulting Scientists to the Disinfectant Industry



Certificate of Analysis

Sample(s) : One sample of Serenity Alcohol Free Hand Sanitiser

Received from: Serenity Group, Kemp House, London, EC1V 2NX

Date received: 16 November 2011 **Date tested:** 21 November 2011

Certificate no: 11L.037B.CLG **Certificate date:** 25 November 2011

Sample ref: 11L/037 **Page:** 1 of 3

Analysis required: EN 1276, Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas - Test method and requirements (phase 2, step 1)

Product stored at: Room temperature

Active substance: Not declared

Test conditions: Dirty

Interfering substance: 3.0g/l bovine albumin

Product test concentration: Neat as received
(80% in test suspension)

Product diluent used during test: N/A

Contact time: 1 minute & 5 minutes

Test temperature: 20°C ± 0.5°C

Neutralising solution: 30g/l polysorbate 80, 3g/l lecithin, 1g/l histidine, 1g/l cysteine

Incubation temperature: 37°C ± 1°C

Identification of bacterial strain(s) used: Methicillin-resistant NCTC 12493
Staphylococcus aureus


D C Watson



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Test results: Contact time 1 minute

| Test Organism | MRSA | |
|---|---|---------|
| Validation Suspension (N _v) | Vc1 106 | Vc2 134 |
| | $\bar{x} = 120$ | |
| Experimental Control (A) | Vc1 112 | Vc2 128 |
| | $\bar{x} = 120 \geq 0.5N_{v_0}$ | |
| Neutraliser Control (B) | Vc1 104 | Vc2 142 |
| | $\bar{x} = 123 \geq 0.5N_{v_0}$ | |
| Method Validation (C) | Vc1 130 | Vc2 114 |
| | $\bar{x} = 122 \geq 0.5N_{v_0}$ | |
| Test Suspension (N) | 10 ⁻⁶ Vc1 224 | Vc2 268 |
| | 10 ⁻⁷ Vc1 34 | Vc2 25 |
| (N _o = 0.1N) | $\bar{w} = 2.50 \times 10^8$ lg N = 8.40 lg N _o = 7.40 | |
| Results (Na) | Vc1 11 | Vc2 15 |
| | 10 \bar{x} < 150 lg Na < 2.18 | |
| (R) | lg R > 5.22 | |
| Pass: lg R ≥ 5 | PASS | |

Vc = plate count per ml
 \bar{x} = average of Vc1 and Vc2
 \bar{w} = weighted mean of \bar{x}
R = reduction (lg R = lg N_o - lg Na)

Requirements & Conclusion:

This batch of Serenity Alcohol Free Hand Sanitiser, when used neat, passes the requirements of EN 1276 for bactericidal activity in 1 minute at 20°C under dirty conditions against the reference organism detailed.

D C Watson

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Test results: Contact time 5 minutes

| Test Organism | MRSA | |
|---|---------------------------------|---------|
| Validation Suspension (N _v) | Vc1 106 | Vc2 134 |
| | $\bar{x} = 120$ | |
| Experimental Control (A) | Vc1 112 | Vc2 128 |
| | $\bar{x} = 120 \geq 0.5N_{v_0}$ | |
| Neutraliser Control (B) | Vc1 104 | Vc2 142 |
| | $\bar{x} = 123 \geq 0.5N_{v_0}$ | |
| Method Validation (C) | Vc1 130 | Vc2 114 |
| | $\bar{x} = 122 \geq 0.5N_{v_0}$ | |
| Test Suspension (N) | 10 ⁻⁶ Vc1 224 | Vc2 268 |
| | 10 ⁻⁷ Vc1 34 | Vc2 25 |
| (N _o = 0.1N) | $\bar{w} = 2.50 \times 10^8$ | |
| | lg N = 8.40 | |
| | lg N _o = 7.40 | |
| Results (Na) | Vc1 0 | Vc2 0 |
| | 10 \bar{x} < 140 | |
| | lg Na < 2.15 | |
| (R) | lg R > 5.25 | |
| Pass: lg R \geq 5 | PASS | |

Vc = plate count per ml
 \bar{x} = average of Vc1 and Vc2
 \bar{w} = weighted mean of \bar{x}
R = reduction (lg R = lg N_o - lg Na)

Requirements & Conclusion:

This batch of Serenity Alcohol Free Hand Sanitiser, when used neat, passes the requirements of EN 1276 for bactericidal activity in 5 minutes at 20°C under dirty conditions against the reference organism detailed.

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