



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Sample(s) : One sample of GreenGold

Received from: Busy Cleaning Ltd, Charter Court, Phoenix Way, Swansea, SA7 9FS

Date received: 23 July 2010 **Date tested:** 28 July 2010

Certificate no: 10G.130E-KR.CLE **Certificate date:** 30 July 2010

Sample ref: 10G/130 **Page:** 1 of 2

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: 20% v/v

Product diluent used during test: Sterile hard water 300mg/l CaCO₃

Contact time: 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:

| | |
|-------------------------------|-------------|
| <i>Pseudomonas aeruginosa</i> | NCIMB 10421 |
| <i>Escherichia coli</i> | NCTC 10418 |
| <i>Salmonella typhimurium</i> | NCTC 12023 |
| <i>Enterobacter cloacae</i> | NCIMB 8151 |

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Test results:

| Test Organism | <i>Pseudomonas aeruginosa</i> | | <i>Escherichia coli</i> | | <i>Salmonella typhimurium</i> | | <i>Enterobacter cloacae</i> | |
|-----------------------------|-------------------------------|---|---|---|---|--|-----------------------------|--|
| Validation Suspension | 10 ⁻¹ | Vc1 366 Vc2 334 | Vc1 304 Vc2 358 | Vc1 366 Vc2 382 | Vc1 444 Vc2 378 | | | |
| | | Nv0 3.50 x10 ³ | Nv0 3.31 x10 ³ | Nv0 3.74 x10 ³ | Nv0 4.11 x10 ³ | | | |
| Experimental Control | 10 ⁰ | Vc1 322 Vc2 304 | Vc1 314 Vc2 356 | Vc1 333 Vc2 370 | Vc1 296 Vc2 354 | | | |
| | | A 3.13 x10 ² | A 3.35 x10 ² | A 3.52 x10 ² | A 3.25 x10 ² | | | |
| Neutraliser Control | 10 ⁰ | Vc1 338 Vc2 314 | Vc1 328 Vc2 348 | Vc1 380 Vc2 322 | Vc1 328 Vc2 366 | | | |
| | | B 3.26 x10 ² | B 3.38 x10 ² | B 3.51 x10 ² | B 3.47 x10 ² | | | |
| Method Validation | 10 ⁰ | Vc1 326 Vc2 350 | Vc1 326 Vc2 350 | Vc1 346 Vc2 318 | Vc1 314 Vc2 302 | | | |
| | | C 3.38 x10 ² | C 3.38 x10 ² | C 3.32 x10 ² | C 3.08 x10 ² | | | |
| Test Suspension | 10 ⁻⁶ | Vc1 312 Vc2 255 | Vc1 246 Vc2 352 | Vc1 292 Vc2 188 | Vc1 324 Vc2 288 | | | |
| | 10 ⁻⁷ | Vc1 28 Vc2 23 | Vc1 35 Vc2 42 | Vc1 23 Vc2 30 | Vc1 33 Vc2 41 | | | |
| | | N 2.69 x10 ⁸ | N 3.42 x10 ⁸ | N 2.53 x10 ⁸ | N 3.38 x10 ⁸ | | | |
| Results | 10 ⁻² | Vc1 0 Vc2 0 | Vc1 0 Vc2 0 | Vc1 0 Vc2 0 | Vc1 0 Vc2 0 | | | |
| | | Na <1.00 x10 ² R >2.69 x10 ⁶ | Na <1.00 x10 ² R >3.42 x10 ⁶ | Na <1.00 x10 ² R >2.53 x10 ⁶ | Na <1.00 x10 ² R >3.38 x10 ⁶ | | | |
| Log ₁₀ Reduction | | > 6.43 | > 6.53 | > 6.40 | > 6.53 | | | |

Vc = Viable count
Nv = cfu/ml in the validation suspension

N = cfu/ml in the test suspension
Na = cfu/ml in the test mixture
R = Reduction in viability

Requirements & Conclusion:

To pass EN 1276 a log₁₀ reduction of at least 5 is required.

This batch of GreenGold, when diluted to 20% v/v, passes the requirements of EN 1276 for bactericidal activity in 5 minutes at 20°C under 'dirty' conditions against the reference organisms detailed.

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