



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Sample(s): One sample of GreenGold Concentrate

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

Date received: 16 May 2011 **Date tested:** 18 May 2011

Certificate no: 11E.040Sp-KR.CLE **Certificate date:** 20 May 2011

Sample ref: 11E/040 **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: 30°C ± 1°C

Identification of bacterial strain(s) used: *Streptococcus pneumoniae* NCTC 12977

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Test results:

Test Organism	<i>Streptococcus pneumoniae</i>	
Validation Suspension (N _v)	Vc1 352	Vc2 328
	$\bar{x} = 340$	
Experimental Control (A)	Vc1 298	Vc2 310
	$\bar{x} = 304 \geq 0.5N_{v_0}$	
Neutraliser Control (B)	Vc1 286	Vc2 324
	$\bar{x} = 305 \geq 0.5N_{v_0}$	
Method Validation (C)	Vc1 300	Vc2 282
	$\bar{x} = 291 \geq 0.5N_{v_0}$	
Test Suspension	10 ⁻⁶ Vc1 312	Vc2 330
	10 ⁻⁷ Vc1 35	Vc2 31
(N)	$\bar{w} = 3.22 \times 10^8$	
	lg N = 8.51	
(N ₀ = 0.1N)	lg N ₀ = 7.51	
Results 10 ⁰	Vc1 <14	Vc2 <14
	10 \bar{x} < 140	
(Na)	lg Na < 2.15	
(R)	lg R > 5.36	
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 N₀ - lg Na)

Conclusion:

This batch of GreenGold Concentrate, 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 organism detailed.

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