



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: 11 November 2009 **Date tested:** 12 November 2009

Certificate no: 09L.063S-KR.ENZ **Certificate date:** 16 November 2009

Sample ref: 9L/063 **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: 10.0% 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: *Salmonella typhimurium* ATCC 14028
Listeria monocytogenes NCTC 11994

D C Watson



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

16 November 2009

Certificate No: 09L.063S-KR.ENZ

Page: 2 of 2

Test results:

Test Organism	<i>Salmonella typhimurium</i>		<i>Listeria monocytogenes</i>	
Validation Suspension	10 ⁻¹	Vc1 366 Vc2 382	Vc1 254 Vc2 242	
		Nv0 3.74 x10 ³	Nv0 2.48 x10 ³	
Experimental Control	10 ⁰	Vc1 333 Vc2 370	Vc1 222 Vc2 208	
		A 3.52 x10 ²	A 2.15 x10 ²	
Neutraliser Control	10 ⁰	Vc1 380 Vc2 322	Vc1 252 Vc2 230	
		B 3.51 x10 ²	B 2.41 x10 ²	
Method Validation	10 ⁰	Vc1 346 Vc2 318	Vc1 288 Vc2 216	
		C 3.32 x10 ²	C 2.52 x10 ²	
Test Suspension	10 ⁻⁶	Vc1 292 Vc2 188	Vc1 454 Vc2 572	
	10 ⁻⁷	Vc1 23 Vc2 30	Vc1 63 Vc2 66	
		N 2.53 x10 ⁸	N 5.79 x10 ⁸	
Results	10 ⁻²	Vc 0	Vc 0	
		Na < 1.00 x10 ²	Na < 1.00 x10 ²	
		R > 2.53 x10 ⁶	R > 5.79 x10 ⁶	
Log ₁₀ Reduction	> 6.40		> 6.76	

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 10.0% 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.

D C Watson

D C Watson BSc, CBiol, MSB, MIFST, ACIEHO
PO Box 95, New Ferry, Wirral, CH62 6HA
Tel: 0151 637 3331 Mob: 07767 871275
email: abbottanalytical@hotmail.co.uk