



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Sample(s) : One sample of Remuvit

Received from: Klenitise Ltd. Unit 59, Vale Business Park, Llandow,
Cowbridge, CF71 7PF

Date received: 23 November 2009 **Date tested:** 27 November 2009

Certificate no: 09L.148SF-KR.ENZ **Certificate date:** 4 December 2009

Sample ref: 9L/148 **Page:** 1 of 2

Analysis required: EN 13697, Chemical disinfectants and antiseptics -
Quantitative non-porous surface test for the evaluation of
bactericidal and/or fungicidal activity of chemical
disinfectants used in food, industrial, domestic and
institutional areas - Test method and requirements without
mechanical action (phase 2, step 2)

Product stored at: Room temperature

Active substance: Not declared

Test conditions: 'Clean'

Interfering substance: 0.3g/l bovine albumin +
1g/l tryptone

Product test concentration: 10.0% v/v

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

Contact time: 15 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 fungal strain(s)
used:** *Aspergillus niger* NCPF 2275
Candida albicans NCPF 3179

D C Watson



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

4 December 2009

Certificate No: 09L.148SF-KR.ENZ

Page: 2 of 2

Test results:

Test Organism	<i>Aspergillus niger</i>		<i>Candida albicans</i>	
Validation Suspension	10 ⁻¹	Vc1 254 Vc2 312	Vc1 328 Vc2 416	
		Nv0 2.83 x10 ³	Nv0 3.72 x10 ³	
Experimental Control	10 ⁰	Vc1 178 Vc2 196	Vc1 300 Vc2 344	
		A 1.87 x10 ²	A 3.22 x10 ²	
Neutraliser Control	10 ⁰	Vc1 184 Vc2 162	Vc1 338 Vc2 292	
		B 1.73 x10 ²	B 3.15 x10 ²	
Method Validation	10 ⁰	Vc1 200 Vc2 216	Vc1 300 Vc2 270	
		C 2.08 x10 ²	C 2.85 x10 ²	
Surface Inoculum	10 ⁻⁵	Vc1 176 Vc2 200	Vc1 276 Vc2 314	
	10 ⁻⁶	Vc1 23 Vc2 28	Vc1 34 Vc2 40	
		N 2.22 x10 ⁷	N 3.33 x10 ⁷	
Results	10 ⁻¹	Vc 0	Vc 0	
		Na < 1.00 x10 ¹	Na < 1.00 x10 ¹	
		R > 2.22 x10 ⁶	R > 3.33 x10 ⁶	
Log ₁₀ Reduction	> 6.35		> 6.52	

Vc = Viable count

Nv = cfu/ml in the validation suspension

N = cfu/ml in the surface inoculum

Na = cfu/ml in the test mixture

R = Reduction in viability

Requirements & Conclusion:

To pass EN 13697 a log₁₀ reduction of at least 3 is required.

This batch of Remuvit, when diluted to 10.0% v/v, passes the requirements of EN 13697 for fungicidal activity in 15 minutes at 20°C under 'clean' 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