



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

Certificate no: 09L.063B-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:**

<i>Pseudomonas aeruginosa</i>	ATCC 15442
<i>Escherichia coli</i>	NCTC 10418
<i>Staphylococcus aureus</i>	NCTC 6571
<i>Enterococcus hirae</i>	ATCC 8043

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Test results:

Test Organism	<i>Pseudomonas aeruginosa</i>		<i>Escherichia coli</i>		<i>Staphylococcus aureus</i>		<i>Enterococcus hirae</i>	
Validation Suspension	10 ⁻¹	Vc1 366 Vc2 334	Vc1 304 Vc2 358	Vc1 636 Vc2 647	Vc1 512 Vc2 485			
		Nv0 3.50 x10 ³	Nv0 3.31 x10 ³	Nv0 6.42 x10 ³	Nv0 4.99 x10 ³			
Experimental Control	10 ⁰	Vc1 322 Vc2 304	Vc1 314 Vc2 356	Vc1 544 Vc2 572	Vc1 374 Vc2 412			
		A 3.13 x10 ²	A 3.35 x10 ²	A 5.58 x10 ²	A 3.93 x10 ²			
Neutraliser Control	10 ⁰	Vc1 338 Vc2 314	Vc1 328 Vc2 348	Vc1 539 Vc2 551	Vc1 414 Vc2 440			
		B 3.26 x10 ²	B 3.38 x10 ²	B 5.45 x10 ²	B 4.27 x10 ²			
Method Validation	10 ⁰	Vc1 326 Vc2 350	Vc1 326 Vc2 350	Vc1 520 Vc2 552	Vc1 422 Vc2 458			
		C 3.38 x10 ²	C 3.38 x10 ²	C 5.36 x10 ²	C 4.40 x10 ²			
Test Suspension	10 ⁻⁶	Vc1 312 Vc2 255	Vc1 246 Vc2 352	Vc1 480 Vc2 736	Vc1 296 Vc2 420			
	10 ⁻⁷	Vc1 28 Vc2 23	Vc1 35 Vc2 42	Vc1 78 Vc2 63	Vc1 43 Vc2 51			
		N 2.69 x10 ⁸	N 3.42 x10 ⁸	N 6.57 x10 ⁸	N 4.14 x10 ⁸			
Results	10 ⁻²	Vc 0	Vc 0	Vc 0	Vc 0			
		Na <1.00 x10 ²	Na <1.00 x10 ²	Na <1.00 x10 ²	Na <1.00 x10 ²			
		R >2.69 x10 ⁶	R >3.42 x10 ⁶	R >6.57 x10 ⁶	R >4.14 x10 ⁶			
Log ₁₀ Reduction	> 6.43		> 6.53		> 6.82		> 6.62	

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 Remuvit, 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.

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