



Abbott Analytical



Consulting Scientists to the Disinfectant Industry

Certificate of Analysis

Sample(s) : One sample of Remuvit Concentrate

Received from: Klenitise Ltd. 14 Cherry Grove, Sketty, Swansea, SA2 8AS

Date received: 19 August 2010 **Date tested:** 23 August 2010

Certificate no: 10H.090Kn-KR.CLE **Certificate date:** 25 August 2010

Sample ref: 10H/090 **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: 1 minute

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: *Klebsiella pneumoniae* NCTC 13443 (NDM-1)

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Test results:

Test Organism	<i>Klebsiella pneumoniae (NDM-1)</i>		
Validation Suspension (N_v)	Vc1 358	Vc2 400	
	$\bar{x} = 379$		
Experimental Control (A)	Vc1 326	Vc2 278	
	$\bar{x} = 302 \geq 0.5N_{v_0}$		
Neutraliser Control (B)	Vc1 344	Vc2 316	
	$\bar{x} = 330 \geq 0.5N_{v_0}$		
Method Validation (C)	Vc1 298	Vc2 266	
	$\bar{x} = 282 \geq 0.5N_{v_0}$		
Test Suspension (N)	10 ⁻⁶	Vc1 264	Vc2 252
	10 ⁻⁷	Vc1 34	Vc2 49
	$\bar{w} = 2.72 \times 10^8$		
	lg N = 8.44		
(N_o = N/10)	lg N _o = 7.44		
Results (Na)	Vc1 0	Vc2 0	
	$\bar{x} \times 10 < 10$		
	lg Na < 1.00		
(R)	lg R > 6.44		
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 N_o - lg Na)

Conclusion:

This batch of Remuvit Concentrate, when diluted to 20% v/v, passes the requirements of EN 1276 for bactericidal activity in 1 minute at 20°C under dirty conditions against the reference organism detailed.

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