



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: 16 May 2011 **Date tested:** 19 May 2011

Certificate no: 11E.040Ca-KR.CLE **Certificate date:** 23 May 2011

Sample ref: 11E/040 **Page:** 1 of 2

Analysis required: EN 1650, Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of fungicidal or yeasticidal 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: 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/yeast strain(s) used: *Candida albicans* NCPF 3179

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Test results:

Test Organism	<i>Candida albicans</i>	
Validation Suspension (N _v)	Vc1 330	Vc2 316
	$\bar{x} = 323$	
Experimental Control (A)	Vc1 296	Vc2 320
	$\bar{x} = 308 \geq 0.5N_{v_0}$	
Neutraliser Control (B)	Vc1 304	Vc2 276
	$\bar{x} = 290 \geq 0.5N_{v_0}$	
Method Validation (C)	Vc1 310	Vc2 258
	$\bar{x} = 284 \geq 0.5N_{v_0}$	
Test Suspension	10 ⁻⁵ Vc1 266	Vc2 304
	10 ⁻⁶ Vc1 33	Vc2 29
(N)	$\bar{w} = 2.87 \times 10^7$	
	lg N = 7.46	
(N ₀ = 0.1N)	lg N ₀ = 6.46	
Results 10 ⁰	Vc1 <14	Vc2 <14
	10 \bar{x} < 140	
(Na)	lg Na < 2.15	
(R)	lg R > 4.31	
Pass: lg R ≥ 4	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 Remuvit Concentrate, when diluted to 20% v/v, passes the requirements of EN 1650 for fungicidal/yeastocidal activity in 15 minutes at 20°C under dirty conditions against the reference organism detailed.

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