



# Abbott Analytical



Consulting Scientists to the Disinfectant Industry

## Certificate of Analysis

**Sample(s) :** One sample of Hand Sanitiser

**Received from:** Safe Solutions (DBG) Ltd. Wharton Green, Bostock Road,  
Winsford, Cheshire, CW7 3BD

**Date received:** 14 May 2010      **Date tested:** 14 May 2010

**Certificate no:** 10E.028H.SSL      **Certificate date:** 17 May 2010

**Sample ref:** 10E/028      **Page:** 1 of 2

**Analysis required:** BS/EN 12054 quantitative suspension test for the evaluation  
of bactericidal activity of surgical handwashes/handrubs

Product stored at: Room temperature

Active substance: Not declared

Test conditions: N/A

Product test concentration: Neat as received  
(90% in test suspension)

Product diluent used during test: N/A

Contact time: 1 minute

Test temperature: 20°C ± 0.5°C

Interfering substance: N/A

Neutralising solution: 30g/l polysorbate 80, 3g/l lecithin,  
1g/l histidine, 1g/l cysteine

Incubation temperature: 37°C ± 1°C

Identification of bacterial strains used:

<i>Pseudomonas aeruginosa</i>	NCIMB 10421
<i>Escherichia coli</i>	NCTC 10418
<i>Staphylococcus aureus</i>	NCTC 10788
<i>Enterococcus hirae</i>	NCIMB 8192

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Page 2 of 2

## Test results:

Test Organism	<i>Pseudomonas aeruginosa</i>		<i>Escherichia coli</i>		<i>Staphylococcus aureus</i>		<i>Enterococcus hirae</i>	
Validation Suspension	10 <sup>-1</sup>	Vc1 452 Vc2 516	Vc1 392 Vc2 454	Vc1 444 Vc2 506	Vc1 524 Vc2 600			
		Nv0 4.84 x10 <sup>3</sup>	Nv0 4.23 x10 <sup>3</sup>	Nv0 4.75 x10 <sup>3</sup>	Nv0 5.62 x10 <sup>3</sup>			
Experimental Control	10 <sup>0</sup>	Vc1 332 Vc2 426	Vc1 338 Vc2 500	Vc1 312 Vc2 370	Vc1 428 Vc2 512			
		A 3.79 x10 <sup>2</sup>	A 4.19 x10 <sup>2</sup>	A 3.41 x10 <sup>2</sup>	A 4.70 x10 <sup>2</sup>			
Neutraliser Control	10 <sup>0</sup>	Vc1 404 Vc2 350	Vc1 442 Vc2 478	Vc1 334 Vc2 304	Vc1 462 Vc2 434			
		B 3.77 x10 <sup>2</sup>	B 4.60 x10 <sup>2</sup>	B 3.19 x10 <sup>2</sup>	B 4.48 x10 <sup>2</sup>			
Method Validation	10 <sup>0</sup>	Vc1 382 Vc2 426	Vc1 404 Vc2 360	Vc1 362 Vc2 316	Vc1 450 Vc2 416			
		C 4.04 x10 <sup>2</sup>	C 3.82 x10 <sup>2</sup>	C 3.39 x10 <sup>2</sup>	C 4.33 x10 <sup>2</sup>			
Test Suspension	10 <sup>-6</sup>	Vc1 520 Vc2 308	Vc1 352 Vc2 416	Vc1 308 Vc2 412	Vc1 314 Vc2 448			
	10 <sup>-7</sup>	Vc1 15 Vc2 32	Vc1 33 Vc2 51	Vc1 46 Vc2 52	Vc1 24 Vc2 15			
		N 3.25 x10 <sup>8</sup>	N 4.02 x10 <sup>8</sup>	N 4.25 x10 <sup>8</sup>	N 2.88 x10 <sup>8</sup>			
Results	10 <sup>-2</sup>	Vc1 0 Vc2 0	Vc1 0 Vc2 0	Vc1 0 Vc2 0	Vc1 0 Vc2 0			
		Na <1.00 x10 <sup>2</sup> R >3.25 x10 <sup>6</sup>	Na <1.00 x10 <sup>2</sup> R >4.02 x10 <sup>6</sup>	Na <1.00 x10 <sup>2</sup> R >4.25 x10 <sup>6</sup>	Na <1.00 x10 <sup>2</sup> R >2.88 x10 <sup>6</sup>			
Log Reduction		> 6.51	> 6.60	> 6.63	> 6.46			

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

## Conclusion:

This batch of Hand Sanitiser, when used neat, passes the requirements of EN 12054 for bactericidal activity in 1 minute at 20°C against the reference organisms detailed.

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