



# Abbott Analytical



Consulting Scientists to the Disinfectant Industry

## Certificate of Analysis

**Sample(s) :** One sample of Cleanitise

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

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

**Certificate no:** 09L.148.ENZ      **Certificate date:** 2 December 2009

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

**Analysis required:** BS/EN 1276 quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants

  

**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 CaCO<sub>3</sub>

**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 10788
<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>		
<b>Validation Suspension</b>	10 <sup>-1</sup>	Vc1 696	Vc2 744	Vc1 358	Vc2 464	Vc1 512	Vc2 464	Vc1 154	Vc2 238
		Nv0 7.20	x10 <sup>3</sup>	Nv0 4.11	x10 <sup>3</sup>	Nv0 4.88	x10 <sup>3</sup>	Nv0 1.96	x10 <sup>3</sup>
<b>Experimental Control</b>	10 <sup>0</sup>	Vc1 538	Vc2 522	Vc1 292	Vc2 370	Vc1 570	Vc2 492	Vc1 106	Vc2 150
		A 5.30	x10 <sup>2</sup>	A 3.31	x10 <sup>2</sup>	A 5.31	x10 <sup>2</sup>	A 1.28	x10 <sup>2</sup>
<b>Neutraliser Control</b>	10 <sup>0</sup>	Vc1 492	Vc2 570	Vc1 340	Vc2 256	Vc1 438	Vc2 476	Vc1 124	Vc2 178
		B 5.31	x10 <sup>2</sup>	B 2.98	x10 <sup>2</sup>	B 4.57	x10 <sup>2</sup>	B 1.51	x10 <sup>2</sup>
<b>Method Validation</b>	10 <sup>0</sup>	Vc1 530	Vc2 612	Vc1 308	Vc2 366	Vc1 422	Vc2 496	Vc1 140	Vc2 106
		C 5.71	x10 <sup>2</sup>	C 3.37	x10 <sup>2</sup>	C 4.59	x10 <sup>2</sup>	C 1.23	x10 <sup>2</sup>
<b>Test Suspension</b>	10 <sup>-7</sup>	Vc1 1590	Vc2 2440	Vc1 2620	Vc2 1440	Vc1 3520	Vc2 4140	Vc1 1360	Vc2 1580
	10 <sup>-8</sup>	Vc1 252	Vc2 340	Vc1 176	Vc2 208	Vc1 396	Vc2 284	Vc1 248	Vc2 200
		N 2.49	x10 <sup>10</sup>	N 1.98	x10 <sup>10</sup>	N 3.62	x10 <sup>10</sup>	N 1.86	x10 <sup>10</sup>
<b>Results</b>	10 <sup>-2</sup>	Vc 12		Vc 0		Vc 3		Vc 0	
		Na 1.20	x10 <sup>3</sup>	Na <1.00	x10 <sup>2</sup>	Na 3.00	x10 <sup>2</sup>	Na <1.00	x10 <sup>2</sup>
		R 2.07	x10 <sup>7</sup>	R >1.98	x10 <sup>8</sup>	R 1.21	x10 <sup>8</sup>	R >1.86	x10 <sup>8</sup>
<b>Log<sub>10</sub> Reduction</b>		7.32		> 8.30		8.08		> 8.27	

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 log<sub>10</sub> reduction of at least 5 is required.

This batch of Cleanitise, 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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