

## TEST REPORT

Customer PO –

Lab ref - 4750

Report date – 19/03/12

Prepared by – Dawn Mellors

On behalf of - Opus Innovations Ltd

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Period of analysis – 1.3.12 – 19.3.12

### Sample Details

<b>Identification of sample</b>	
Name of product:	Aquaint
Batch number:	Not Available
Sample Description:	'100% Natural Sanitiser'

The sample was transferred from the Aquaint bottle in which it was supplied to an Acquassimo bottle (also supplied). This was to achieve the required spray volume of approximately 6ml from 5 sprays.

The Aquaint bottle delivers approximately 0.25ml per spray. The Acquassimo bottle delivers approximately 1.46ml per spray.



**Test Method:**

Bespoke Method developed to meet customer requirements.

**Method Outline:**

Interfering substance: None used at customer request.

Contact Time: 30 seconds after the final spray (total time to spray the bottle 5 times approximately 5 seconds).

250µl of a bacterial suspension in sterile deionised water was dried onto a 150ml baby's plastic feeding bottle. Drying took place at 37°C on an orbital shaker.



After drying the bottles were held horizontally and the product (held vertically) was sprayed 5 times into the bottle.

The contact time commenced after the last spray. Throughout the contact time the bottle was gently rotated to ensure complete contact.

At the end of the contact time 63 ml of neutraliser was added to the bottle, shaken and left to stand for 15 minutes.

The log reduction in bacterial numbers was calculated by comparison with the control.

The control underwent the same process as the test with the replacement of the test spray with 7ml of sterile deionised water.

## Test Results

### Neutraliser Validation: Neutraliser 3

Organism	Inoculum log	Saline log	Test Product log	Pass / Fail
<i>Pseudomonas aeruginosa</i>	2.9	2.7	2.8	Pass
<i>Staphylococcus aureus</i>	2.7	2.7	2.7	Pass
<i>Escherichia coli</i>	2.4	2.4	2.3	Pass
<i>Enterococcus hirae</i>	2.5	2.6	2.5	Pass

Test Organism	Inoculum cfu/250µl	Organism Recovery per Bottle (total volume in bottles at end of test approximately 70ml)				Log Reduction	% Reduction
		Average Recovery from Control Bottles		Average Recovery from Test Bottles			
		Cfu/bottle	Log	Cfu/bottle	Log		
<i>Pseudomonas aeruginosa</i>	$5.8 \times 10^7$	$4.2 \times 10^7$	7.6	$3.2 \times 10^3$	3.5	4.1	99.99
<i>Staphylococcus aureus</i>	$3.3 \times 10^8$	$1.0 \times 10^3$	8.0	$1.3 \times 10^5$	5.1	2.9	99.87
<i>Escherichia coli</i>	$2.8 \times 10^7$	$3.5 \times 10^7$	7.5	$3.7 \times 10^3$	3.6	3.9	99.99
<i>Enterococcus hirae</i>	$6.0 \times 10^7$	$6.8 \times 10^7$	7.8	$1.6 \times 10^4$	4.2	3.6	99.98

### Conclusion

The product showed some antibacterial activity against the organisms tested after a 30s contact time.

With the exception of *S.aureus* the percentage reduction achieved the 99.9% as stated on the Aquaint bottle.

The sample will be retained for 1 month unless otherwise requested.

Danika Puzinowski

Microbiology Technician



Company Microbiologist  
Dawn Mellors

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