

## Testing of an Air Treatment Machine based on the methodology of NF T 72-281

Client Details: Eco-Mist Biotechnics Ltd,  
Unit A2,  
Mainline Ind Est  
Milnthorpe

Client Contact Name: Eric Warren  
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Date Of Report: 14/10/18

**MelBec Reference Number:** 7784  
**No. of samples:** 1

**Sample Details:**

Name of Product:	Toucan
Batch Number:	-
Manufacturer / Supplier:	Eco-mist
Product Storage conditions:	Ambient in the dark
Appearance of the Product (as supplied):	-
Active Substance and concentration:	-
Product Dilutions/Concentrations and Diluent:	Ready to Use

**Date Product Received: 10/10/18****Date Tested: 10/10/18****Experimental Conditions:**

Interfering Substance:	Not applicable
Test Temperature:	20°C
Contact Time:	One cycle of the machine
Test Organisms:	<i>Pseudomonas aeruginosa</i> ATCC 15442, <i>Escherichia coli</i> ATCC 10536, <i>Staphylococcus aureus</i> ATCC 6538, <i>Enterococcus hirae</i> ATCC 10541, <i>Bacillus subtilis</i> spores NCTC 10400
Incubation Temperature:	36°C
Neutraliser:	N1 Broth (5ml)

**Conclusion:**

There was no recovery of the vegetative cells from the discs after one cycle of the machine with the test product.

The spores gave a mean reduction of 4 lg after one cycle of the machine with the test product.

Testing carried out by:

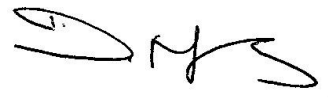
Danika Weatherburn

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Report authorised by:

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Technical Director





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### Test Results

<b>Organism</b>	<b>N<sub>c</sub> (Control) cfu/test surface</b>	<b>N<sub>d</sub> (Test) cfu / test surface</b>
<b><i>Ps. aeruginosa</i></b>		
Replicate 1	0,0 neat	46,37 -5
Replicate 2	0,0 neat	27,35 -5
Replicate 3	0,0 neat	217, 206 -4
Mean	< 5.00 x 10 <sup>0</sup> < 0.7 lg	1.56 x 10 <sup>7</sup> 7.19 lg
<b><i>St. aureus</i></b>		
Replicate 1	0,0 neat	29, 44 -6
Replicate 2	0,0 neat	27, 26 -6
Replicate 3	0,0 neat	42, 33 -6
Mean	< 5.00 x 10 <sup>0</sup> < 0.7 lg	1.68 x 10 <sup>8</sup> 8.23 lg
<b><i>E.coli</i></b>		
Replicate 1	0,0 neat	45, 36 -5
Replicate 2	0,0 neat	48, 51 -5
Replicate 3	0,0 neat	43, 31 -5
Mean	< 5.00 x 10 <sup>0</sup> < 0.7 lg	2.12 x 10 <sup>7</sup> 7.33 lg
<b><i>Enterococcus hirae</i></b>		
Replicate 1	0,0 neat	160, 166 -5
Replicate 2	0,0 neat	201, 201 -5
Replicate 3	0,0 neat	246, 274 -5
Mean	< 5.00 x 10 <sup>0</sup> < 0.7 lg	1.04 x 10 <sup>8</sup> 8.02 lg
<b><i>Bacillus subtilis</i> spores</b>		
Replicate 1	71, 63 neat	41,76 -4
Replicate 2	103, 97 neat	59,43 -4
Replicate 3	1, 7 neat	63,60 -4
Mean	2.85 x 10 <sup>2</sup> 2.45 lg	2.85 x 10 <sup>6</sup> 6.45 lg

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Organism	Mean IgNc	Mean IgNd	Log Reduction
<i>Ps. aeruginosa</i>	7.19	<0.7	>6.49
<i>St. aureus</i>	8.23	<0.7	>7.53
<i>E.coli</i>	7.33	<0.7	>6.63
<i>Enterococcus hirae</i>	8.02	<0.7	>7.32
<i>Bacillus subtilis</i> spores	6.45	2.45	4.00

	Validation cfu/test surface	
	Control	Test
<i>Ps. aeruginosa</i>		
Replicate 1	1.30 x 10 <sup>7</sup>	2.15 x 10 <sup>7</sup>
Replicate 2	2.01 x 10 <sup>7</sup>	2.60 x 10 <sup>7</sup>
<i>St. aureus</i>		
Replicate 1	1.56 x 10 <sup>6</sup>	1.39 x 10 <sup>6</sup>
Replicate 2	1.63 x 10 <sup>6</sup>	1.51 x 10 <sup>6</sup>
<i>E.coli</i>		
Replicate 1	7.65 x 10 <sup>5</sup>	7.80 x 10 <sup>5</sup>
Replicate 2	8.65 x 10 <sup>5</sup>	8.65 x 10 <sup>5</sup>
<i>Enterococcus hirae</i>		
Replicate 1	6.2 x 10 <sup>5</sup>	8.25 x 10 <sup>5</sup>
Replicate 2	7.95 x 10 <sup>5</sup>	6.45 x 10 <sup>5</sup>
<i>Bacillus subtilis</i> spores		
Replicate 1	1.35 x 10 <sup>6</sup>	1.45 x 10 <sup>6</sup>
Replicate 2	2.02 x 10 <sup>6</sup>	1.78 x 10 <sup>6</sup>