

# Scientific Services

**Consultant Microbiologists  
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K121171-2

2<sup>nd</sup> June 2020

## LABORATORY REPORT

**SOURCE:** X-Mist

**ITEMS:** X-Mist aerosol - fluid from can

**TESTS:** BSEN1276:2019  
Concentration: Neat  
Temperature: 20 C  
Contact time: 5 minutes  
Interfering substance: Bovine Albumin 3.0g/l (dirty)  
Storage conditions: Room temperature, out of direct sunlight  
Active substances: Not given  
Test Date: 28<sup>th</sup> May 2020

Recovery: Dilution neutralisation, using:-

Tryptone Soya Broth containing Tween 80 100ml/l,  
Lecithin 30g/l, Sodium thiosulphate 5g/l, L-histidine  
1g/l, L-cystine 1g/l

Test organisms:	Staphylococcus aureus	ATCC 6538
	Pseudomonas aeruginosa	ATCC 15442
	Escherichia coli	ATCC 10536
	Enterococcus hirae	ATCC 10541

## **SUMMARY & CONCLUSIONS:**

K121171-2

<b>Organism</b>	<b>Control</b>	<b>X-Mist aerosol - fluid from can</b>	<b>Log Reduction</b>
Staphylococcus aureus ATCC 6538	2.58x10 E7	<10 (<140)	>6.41 (>5.26)
Pseudomonas aeruginosa ATCC 15442	2.92x10 E7	<10 (<140)	>6.47 (>5.32)
Escherichia coli ATCC 10536	2.57x10 E7	<10 (<140)	>6.41 (>5.26)
Enterococcus hirae ATCC 10541	2.26x10 E7	<10 (<140)	>6.35 (>5.20)

All test results below 140 ( $1.4 \times 10^2$ ) are required to be reported as <140

The sample complies with the criteria of BSEN1276:2019 (log 5 reduction) after 5 minutes contact against all four organisms under the test conditions stated.

*KM Self*

**K.M.Self, M.B.I.C.Sc., M.R.S.P.H., A.M.S.B.**

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**Detailed Results**      K121171-2      X-Mist aerosol - fluid from can

Staphylococcus aureus      ATCC 6538

Test Suspension (N + No)

N	V <sub>C1</sub>	V <sub>C2</sub>		
10 <sup>-6</sup>	244	270	Weighted Mean = 2.58x10 E8	log = 8.41
10 <sup>-7</sup>	25	28	No = N/10 = 2.58x10 E7	log = 7.41

Test (Na)

V <sub>C1</sub>	V <sub>C2</sub>	mean		
<1	<1	<1	Na = mean x10 = <10 (<140)	log = <1 (<2.15)

Log Reduction

>6.41 (>5.26)

Validation & Controls

Validation Suspension (Nvo)

V <sub>C1</sub>	V <sub>C2</sub>	mean
60	68	64

Experimental Conditions Control (A)

V <sub>C1</sub>	V <sub>C2</sub>	mean
65	63	64

Neutraliser Toxicity Control (B)

V <sub>C1</sub>	V <sub>C2</sub>	mean
60	61	60.5

Dilution Neutralisation Control (C)

V <sub>C1</sub>	V <sub>C2</sub>	mean
57	63	60

**Detailed Results**      K121171-2      X-Mist aerosol - fluid from can

Pseudomonas aeruginosa      ATCC 15442

Test Suspension (N + No)

N	V <sub>C1</sub>	V <sub>C2</sub>		
10 <sup>-6</sup>	286	298	Weighted Mean = 2.92x10 E8 No = N/10 = 2.92x10 E7	log = 8.47
10 <sup>-7</sup>	27	31		log = 7.47

Test (Na)

V <sub>C1</sub>	V <sub>C2</sub>	mean		
<1	<1	<1	Na = mean x10 = <10 (<140)	log = <1 (<2.15)

Log Reduction

>6.47 (>5.32)

Validation & Controls

Validation Suspension (Nvo)

V <sub>C1</sub>	V <sub>C2</sub>	mean
74	73	73.5

Experimental Conditions Control (A)

V <sub>C1</sub>	V <sub>C2</sub>	mean
76	71	73.5

Neutraliser Toxicity Control (B)

V <sub>C1</sub>	V <sub>C2</sub>	mean
71	69	70

Dilution Neutralisation Control (C)

V <sub>C1</sub>	V <sub>C2</sub>	mean
66	74	70

**Detailed Results**      K121171-2      X-Mist aerosol - fluid from can

Escherichia coli      ATCC 10536

Test Suspension (N + No)

N	V <sub>C1</sub>	V <sub>C2</sub>		
10 <sup>-6</sup>	246	268	Weighted Mean = 2.57x10 E8 No = N/10 = 2.57x10 E7	log = 8.41
10 <sup>-7</sup>	24	28		log = 7.41

Test (Na)

V <sub>C1</sub>	V <sub>C2</sub>	mean		
<1	<1	<1	Na = mean x10 = <10 (<140)	log = <1 (<2.15)

Log Reduction

>6.41 (>5.26)

Validation & Controls

Validation Suspension (Nvo)

V <sub>C1</sub>	V <sub>C2</sub>	mean
64	62	63

Experimental Conditions Control (A)

V <sub>C1</sub>	V <sub>C2</sub>	mean
66	58	62

Neutraliser Toxicity Control (B)

V <sub>C1</sub>	V <sub>C2</sub>	mean
61	57	59

Dilution Neutralisation Control (C)

V <sub>C1</sub>	V <sub>C2</sub>	mean
58	60	59

**Detailed Results**      K121171-2      X-Mist aerosol - fluid from can

Enterococcus hirae      ATCC 10541

Test Suspension (N + No)

N	V <sub>C1</sub>	V <sub>C2</sub>		
10 <sup>-6</sup>	232	218	Weighted Mean = 2.26x10 E8	log = 8.35
10 <sup>-7</sup>	23	25	No = N/10 = 2.26x10 E7	log = 7.35

Test (Na)

V <sub>C1</sub>	V <sub>C2</sub>	mean		
<1	<1	<1	Na = mean x10 = <10 (<140)	log = <1 (<2.15)

Log Reduction

>6.35 (>5.20)

Validation & Controls

Validation Suspension (Nvo)

V <sub>C1</sub>	V <sub>C2</sub>	mean
56	58	57

Experimental Conditions Control (A)

V <sub>C1</sub>	V <sub>C2</sub>	mean
50	60	55

Neutraliser Toxicity Control (B)

V <sub>C1</sub>	V <sub>C2</sub>	mean
51	54	52.5

Dilution Neutralisation Control (C)

V <sub>C1</sub>	V <sub>C2</sub>	mean
50	56	53