

Report Date: 25/04/2020

Melbec Ref Number: 16346

No. of Samples: 1

Name of Test Product: Alcohol Hand Gel

Batch Number: AT150420A

Sample Details:

Product storage conditions:..... Ambient
Appearance of the product (as supplied):..... Clear Gel
Appearance of the product (after dilution):..... Clear liquid
Appearance of product with interfering substance and test organism: Opaque liquid
Active substance and concentration:..... Alcohol
Product dilutions/concentrations:..... Ready to Use (RTU),50% and 10%
Diluent used to dilute product:..... Synthetic Hard Water

Incubation temperature: 36 degrees

The test product was in satisfactory condition for testing when received.

Date product received: 17/04/20 Test Date: 18/04/20

Experimental Conditions:

Interfering substance: Bovine Albumin (clean 0.3g/l)
Test temperature: 18 to 25 °C
Contact time: 60 Seconds
Test organisms: Pseudomonas aeruginosa ATCC 15442
Staphylococcus aureus ATCC 6538
Escherichia coli K12 NCTC 10538
Enterococcus hirae ATCC 10541

Requirements of the Standard:

The test product shall demonstrate at least a 5 decimal logarithm (lg) reduction when tested in accordance with this standard under simulated clean or dirty conditions.

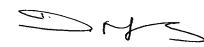
Conclusion:

For the product Alcohol Hand Gel, [AT150420A] the log reduction requirements as specified in EN 1276:2019 (5 lg within the relevant contact time) were met for Ready To Use (RTU) concentrations and failed at 50% and 10%.

Testing carried out by:

Name: Danika Weatherburn
Position: Laboratory Manager

Report authorised by:



Name: Dawn Mellors
Position: Technical Director
Date: 25/04/2020

***Pseudomonas aeruginosa* ATCC
15442**

Validation and controls									Melbec Ref No	16346	
Validation suspension (Nv_0)			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	72	$\bar{X} =$	Vc 1	46	$\bar{X} =$	Vc 1	66	$\bar{X} =$	Vc 1	60	$\bar{X} =$
Vc 2	69	70.5	Vc 2	45	45.5	Vc 2	59	62.5	Vc 2	51	55.5
$30 \leq \bar{X} \text{ of } Nv_0 \leq 160?$ Yes			$\bar{X} \text{ of A is } \geq 0.5 \times \bar{X} \text{ of } Nv_0?$ Yes			$\bar{X} \text{ of B is } \geq 0.5 \times \bar{X} \text{ of } Nv_0?$ Yes			$\bar{X} \text{ of C is } \geq 0.5 \times \bar{X} \text{ of } Nv_0?$ Yes		

Test suspension and test

Test suspension (N and N_0):	N	Vc 1	Vc 2	X m	3.30E+08	; lg N =	8.52
	10^{-6}	>330	>330	$N_0 = N/10$; lg $N_0 =$	7.52
	10^{-7}	34	32	$7.17 \leq \lg N_0 \leq 7.70?$	Yes	$\bar{X} \text{ quotient} = >5 \text{ and } <15?$	N/A

Conc. of the active (%)	Vc 1	Vc 2	$Na = \bar{X} \times 10$	lgNa	lgR		Contact time	Result
					$N_0 =$	7.52		
RTU	<14	<14	1.40E+02	<2.15		>5.37	60 Seconds	Pass
50%	<14	<14	1.40E+02	<2.15		>5.37	60 Seconds	Pass
10%	>330	>330	3.30E+03	>3.52		<4.00	60 Seconds	Fail

**Staphylococcus aureus ATCC
6538**

Validation and controls									Melbec Ref No	16346	
Validation suspension (N_{v0})			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	62	$\bar{X} =$	Vc 1	78	$\bar{X} =$	Vc 1	60	$\bar{X} =$	Vc 1	59	$\bar{X} =$
Vc 2	52	57	Vc 2	60	69	Vc 2	59	59.5	Vc 2	43	51
$30 \leq \bar{X} \text{ of } N_{v0} \leq 160?$ Yes			$\bar{X} \text{ of A is } \geq 0.5 \times \bar{X} \text{ of } N_{v0}?$ Yes			$\bar{X} \text{ of B is } \geq 0.5 \times \bar{X} \text{ of } N_{v0}?$ Yes			$\bar{X} \text{ of C is } \geq 0.5 \times \bar{X} \text{ of } N_{v0}?$ Yes		

Test suspension and test

Test suspension (N and N_0):	N	Vc 1	Vc 2	X wm 2.17E+08 ; lg N = 8.34		
	10^{-6}	229	192	$N_0 = N/10$; lg $N_0 = 7.34$		
	10^{-7}	29	28	7.17 \leq lg $N_0 \leq$ 7.70? Yes \bar{X} quotient = >5 and <15? 7.39		

Conc. of the active (%)	Vc 1	Vc 2	$N_a = \bar{X} \times 10$	lg N_a	lgR		Contact time	Result
					$N_0 =$	7.34		
RTU	<14	<14	1.40E+02	<2.15		>5.19	60 Seconds	Pass
50%	>330	>330	3.30E+03	>3.52		<3.82	60 Seconds	Fail
10%	>330	>330	3.30E+03	>3.52		<3.82	60 Seconds	Fail

**Escherichia coli K12 NCTC
10538**

Validation and controls									Melbec Ref No	16346	
Validation suspension (Nv_0)			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	59	$\bar{X} =$	Vc 1	51	$\bar{X} =$	Vc 1	63	$\bar{X} =$	Vc 1	48	$\bar{X} =$
Vc 2	45	52	Vc 2	44	47.5	Vc 2	47	55	Vc 2	48	48
30 ≤ \bar{X} of Nv_0 ≤ 160? Yes			\bar{X} of A is ≥ 0.5 x \bar{X} of Nv_0 ? Yes			\bar{X} of B is ≥ 0.5 x \bar{X} of Nv_0 ? Yes			\bar{X} of C is ≥ 0.5 x \bar{X} of Nv_0 ? Yes		

Test suspension and test

Test suspension (N and N_0):	N	Vc 1	Vc 2	X_{wm} 2.43E+08 ; $\lg N =$ 8.39
	10^{-6}	257	213	$N_0 = N/10$; $\lg N_0 =$ 7.39
	10^{-7}	34	31	7.17 ≤ $\lg N_0$ ≤ 7.70? Yes \bar{X} quotient = >5 and <15? 7.23

Conc. of the active (%)	Vc 1	Vc 2	$Na = \bar{X} \times 10$	$\lg Na$	$\lg R$ $N_0 =$ 7.39	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15	>5.24	60 Seconds	Pass
50%	85	71	7.80E+02	2.89	4.49	60 Seconds	Fail
10%	>330	>330	3.30E+03	>3.52	<3.87	60 Seconds	Fail

Enterococcus hirae ATCC 10541

Validation and controls									Melbec Ref No	16346	
Validation suspension (N_{v0})			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	96	$\bar{X} =$	Vc 1	87	$\bar{X} =$	Vc 1	124	$\bar{X} =$	Vc 1	88	$\bar{X} =$
Vc 2	76	86	Vc 2	79	83	Vc 2	111	117.5	Vc 2	86	87
30 ≤ \bar{X} of N_{v0} ≤ 160? Yes			\bar{X} of A is ≥ 0.5 x \bar{X} of N_{v0} ? Yes			\bar{X} of B is ≥ 0.5 x \bar{X} of N_{v0} ? Yes			\bar{X} of C is ≥ 0.5 x \bar{X} of N_{v0} ? Yes		

Test suspension and test

Test suspension (N and N_0):	N	Vc 1	Vc 2	X m	3.25E+08	; lg N =	8.51
	10^{-6}	>330	>330	$N_0 = N/10$; lg $N_0 =$	7.51
	10^{-7}	40	25	7.17 ≤ lg N_0 ≤ 7.70?		Yes	
				\bar{X} quotient = >5 and <15?		N/A	

Conc. of the active (%)	Vc 1	Vc 2	$N_a = \bar{X} \times 10$	lg N_a	lgR $N_0 =$ 7.51		Contact time	Result
RTU	<14	<14	1.40E+02	<2.15		>5.37	60 Seconds	Pass
50%	>330	>330	3.30E+03	>3.52		<3.99	60 Seconds	Fail
10%	>330	>330	3.30E+03	>3.52		<3.99	60 Seconds	Fail