

Company Name: ORCAGEL Ltd

Contact Name: C.Whiteside

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Report Date: 26/05/2020

**Melbec Ref Number:** 16988

**No. of Samples:** 1

  

**Name of Test Product:** Hand Rub

**Batch Number:** N/A

**Sample Details:**

Manufacture / Supplier:..... Orcagel Ltd  
Product storage conditions:..... Ambient Clear  
Appearance of the product (as supplied):..... Gel  
Appearance of the product (after dilution):..... NA  
Appearance of product with interfering substance and test organism: Clear Gel  
Active substance and concentration:..... Ethanol  
Product dilutions/concentrations:..... Ready to Use (RTU)  
Diluent used to dilute product:..... N/A

Incubation temperature: ..... 36 degrees

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

Date product received: 07/05/20 Test Date: 14/05/20

**Experimental Conditions:**

Interfering substance: Bovine Albumin (clean 0.3g/l)  
Test temperature: 18 to 25 °C  
Contact time: 30 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 Hand Rub, [N/A] the log reduction requirements as specified in EN 1276:2019 (5 lg within the relevant contact time) were met.

Testing carried out by:

Name: Danika Weatherburn  
Position: Laboratory Manager

Report authorised by:

Name: Dawn Mellors  
Position: Technical Director  
Date: 26/05/2020

**Test Results:**

**Neutralisation Method Used:**

Dilution neutralisation by pour plate

Neutraliser used

***Pseudomonas aeruginosa* ATCC  
15442**

Validation and controls									Melbec Ref No	16988	
Validation suspension ( $Nv_0$ )			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	70	$\bar{X} =$	Vc 1	54	$\bar{X} =$	Vc 1	70	$\bar{X} =$	Vc 1	73	$\bar{X} =$
Vc 2	58	64	Vc 2	51	52.5	Vc 2	64	67	Vc 2	66	69.5
30 ≤ $\bar{X}$ of $Nv_0$ ≤ 160? <b>Yes</b>			$\bar{X}$ of A is ≥ 0.5 x $\bar{X}$ of $Nv_0$ ? <b>Yes</b>			$\bar{X}$ of B is ≥ 0.5 x $\bar{X}$ of $Nv_0$ ? <b>Yes</b>			$\bar{X}$ of C is ≥ 0.5 x $\bar{X}$ of $Nv_0$ ? <b>Yes</b>		

**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
	$10^{-7}$	33	32	$7.17 \leq lg N_0 \leq 7.70?$	Yes	$\bar{X}$ quotient = >5 and <15?	N/A

Conc. of the active (%)	Vc 1	Vc 2	$Na = \bar{X} \times 10$	$lg Na$	$lg R$ $N_0 =$	7.51	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15		>5.37	30 Seconds	Pass

**Staphylococcus aureus ATCC  
6538**

Validation and controls									Melbec Ref No	16988	
Validation suspension ( $N_{v_0}$ )			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	105	$\bar{X} =$	Vc 1	133	$\bar{X} =$	Vc 1	98	$\bar{X} =$	Vc 1	83	$\bar{X} =$
Vc 2	83	94	Vc 2	131	132	Vc 2	91	94.5	Vc 2	79	81
$30 \leq \bar{X} \text{ of } N_{v_0} \leq 160?$ <b>Yes</b>			$\bar{X} \text{ of A is } \geq 0.5 \times \bar{X} \text{ of } N_{v_0}?$ <b>Yes</b>			$\bar{X} \text{ of B is } \geq 0.5 \times \bar{X} \text{ of } N_{v_0}?$ <b>Yes</b>			$\bar{X} \text{ of C is } \geq 0.5 \times \bar{X} \text{ of } N_{v_0}?$ <b>Yes</b>		

**Test suspension and test**

Test suspension (N and $N_0$ ):	N	Vc 1	Vc 2	$X_m$ 4.00E+08 ; $\lg N =$ 8.60
	$10^{-6}$	>330	>330	$N_0 = N/10$ ; $\lg N_0 =$ 7.60
	$10^{-7}$	41	39	$7.17 \leq \lg N_0 \leq 7.70?$ Yes $\bar{X} \text{ quotient} = >5 \text{ and } <15?$ N/A

Conc. of the active (%)	Vc 1	Vc 2	$N_a = \bar{X} \times 10$	$\lg N_a$	$\lg R$ $N_0 =$ 7.60	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15	>5.46	30 Seconds	Pass

**Escherichia coli K12 NCTC  
10538**

Validation and controls									Melbec Ref No	16988	
Validation suspension ( $N_{v_0}$ )			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	75	$\bar{X} =$	Vc 1	68	$\bar{X} =$	Vc 1	64	$\bar{X} =$	Vc 1	79	$\bar{X} =$
Vc 2	72	73.5	Vc 2	64	66	Vc 2	61	62.5	Vc 2	52	65.5
$30 \leq \bar{X} \text{ of } N_{v_0} \leq 160?$ <b>Yes</b>			$\bar{X} \text{ of A is } \geq 0.5 \times \bar{X} \text{ of } N_{v_0}?$ <b>Yes</b>			$\bar{X} \text{ of B is } \geq 0.5 \times \bar{X} \text{ of } N_{v_0}?$ <b>Yes</b>			$\bar{X} \text{ of C is } \geq 0.5 \times \bar{X} \text{ of } N_{v_0}?$ <b>Yes</b>		

**Test suspension and test**

<b>Test suspension (N and <math>N_0</math>):</b>	<b>N</b>	Vc 1	Vc 2	$X_{wm} = 1.60E+08$ ; $\lg N = 8.20$
	$10^{-6}$	203	108	$N_0 = N/10$ ; $\lg N_0 = 7.20$
	$10^{-7}$	25	16	$7.17 \leq \lg N_0 \leq 7.70?$ Yes $\bar{X} \text{ quotient} = >5 \text{ and } <15?$ 7.59

Conc. of the active (%)	Vc 1	Vc 2	$N_a = \bar{X} \times 10$	$\lg N_a$	$\lg R$ $N_0 =$	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15	7.20 >5.06	30 Seconds	<b>Pass</b>

**Enterococcus hirae ATCC 10541**

Validation and controls									Melbec Ref No	16988	
Validation suspension ( $N_{v_0}$ )			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	80	$\bar{X} =$	Vc 1	91	$\bar{X} =$	Vc 1	78	$\bar{X} =$	Vc 1	84	$\bar{X} =$
Vc 2	70	75	Vc 2	78	84.5	Vc 2	63	70.5	Vc 2	77	80.5
30 ≤ $\bar{X}$ of $N_{v_0}$ ≤ 160? <b>Yes</b>			$\bar{X}$ of A is ≥ 0.5 x $\bar{X}$ of $N_{v_0}$ ? <b>Yes</b>			$\bar{X}$ of B is ≥ 0.5 x $\bar{X}$ of $N_{v_0}$ ? <b>Yes</b>			$\bar{X}$ of C is ≥ 0.5 x $\bar{X}$ of $N_{v_0}$ ? <b>Yes</b>		

**Test suspension and test**

	N	Vc 1	Vc 2	$X_{wm}$	$2.58E+08$	$lg N =$	8.41
Test suspension (N and $N_0$ ):	$10^{-6}$	265	263	$N_0 = N/10$		$lg N_0 =$	7.41
	$10^{-7}$	23	16	$7.17 \leq lg N_0 \leq 7.70?$		Yes	
				$\bar{X}$ quotient = >5 and <15?			13.54

Conc. of the active (%)	Vc 1	Vc 2	$N_a = \bar{X} \times 10$	$lg N_a$	$lg R$ $N_0 =$	7.41	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15		>5.27	30 Seconds	Pass