



Test Report for a General-Purpose Disinfectant Product
BS EN 1276:2019



Company Name: Vapourtec Ltd

Contact Name: [REDACTED]

Contact Email: [REDACTED]

Purchase Order No.: [REDACTED]

Report Date: 02/08/2021

Melbec Ref Number: 29664

No. of Samples: 1

Name of Test Product: Chemical disinfectant single concentration

Batch Number: N/A

Sample Details:

Manufacture / Supplier:..... Vapourtec Ltd
Product storage conditions:..... Ambient
Appearance of the product (as supplied):..... Clear colourless liquid
Appearance of the product (after dilution):..... N/A
Appearance of product with interfering substance and test organism: Clear colourless liquid
Active substance and concentration:..... HOCl
Product dilution preparation..... NA
Product dilutions/concentrations:..... Liquid generated at 187.5ppm to give a final concentration in test of 150ppm
Diluent used to dilute product:..... N/A

Incubation temperature: 35 °C to 38 °C

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

Date product received: 12/07/21

Test Date: 26/07/21

Experimental Conditions:

Interfering substance: Bovine Albumin (clean 0.3g/l)
Test temperature: 20 °C +/- 1 °C
Contact time: 5 minutes
Test organisms: *Pseudomonas aeruginosa* ATCC 15442
Staphylococcus aureus ATCC 6538
Escherichia coli ATCC 10536
Enterococcus hirae ATCC 10541

Deviations:

EN1276 states incubation temperature of 36±1°C or 37±1°C. Melbec Microbiology Ltd method states 35°C - 38°C.
Testing carried out at one concentration at client request.



Test Report for a General-Purpose Disinfectant Product
BS EN 1276:2019



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 Chemical disinfectant single concentration, [Batch code: N/A] the log reduction requirements as specified in EN 1276:2019 (5 lg within the relevant contact time) were met in clean conditions with a contact time of 5 minutes.

Report authorised by:

Name: Dawn Mellors
Position: Technical Director
Date: 02/08/2021

All samples are tested as received and the condition on receipt is deemed to be satisfactory for testing unless client is informed otherwise. If an unsatisfactory sample is received and tested on instruction from the client comments are included on the report detailing this information. Results given for this may be invalid. Results detailed above relate only to the samples tested. Sample description and batch references stated are as provided by the customer. This test report shall not be reproduced except in full without the approval of Melbec Microbiology Ltd.

Test Results:

Neutralisation Method Used:

Dilution neutralisation by pour plate

Neutraliser used N1

Pseudomonas aeruginosa ATCC
 15442

Validation and controls									Melbec Ref No	29664	
Validation suspension (Nv_0)			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	92	$\bar{X} =$	Vc 1	43	$\bar{X} =$	Vc 1	78	$\bar{X} =$	Vc 1	56	$\bar{X} =$
Vc 2	87	89.5	Vc 2	57	50	Vc 2	76	77	Vc 2	53	54.5
$30 \leq \bar{X} \text{ of } Nv_0 \leq 160?$ 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

	N	Vc 1	Vc 2	X _{wm}	3.09E+08	lg N =	8.49
Test suspension (N and N ₀):	10 ⁻⁶	311	300	N ₀ = N/10		lg N ₀ =	7.49
	10 ⁻⁷	39	30	7.17 ≤ lg N ₀ ≤ 7.70?		Yes	
				\bar{X} quotient = >5 and <15?			8.86

Bactericidal activity results

Conc. of the active (%)	Vc 1	Vc 2	Na = $\bar{X} \times 10$	lg Na	lgR N ₀ =	7.49	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15	>5.34		5 minutes	Pass

Validation and controls									Melbec Ref No	29664	
Validation suspension (N_{v0})			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	59	$\bar{X} =$	Vc 1	38	$\bar{X} =$	Vc 1	37	$\bar{X} =$	Vc 1	57	$\bar{X} =$
Vc 2	53	56	Vc 2	32	35	Vc 2	33	35	Vc 2	43	50
$30 \leq \bar{X} \text{ of } N_{v0} \leq 160?$ 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

	N	Vc 1	Vc 2	X_{wm} 2.66E+08 ; $\lg N =$ 8.43
Test suspension (N and N_0):	10^{-6}	276	264	$N_0 = N/10$; $\lg N_0 =$ 7.43
	10^{-7}	26	20	$7.17 \leq \lg N_0 \leq 7.70?$ Yes
				$\bar{X} \text{ quotient} = >5 \text{ and } <15?$ 11.74

Bactericidal activity results

Conc. of the active (%)	Vc 1	Vc 2	$N_a = \bar{X} \times 10$	$\lg N_a$	$\lg R$ $N_0 =$ 7.43	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15	>5.28	5 minutes	Pass

Escherichia coli ATCC 10536

Validation and controls

Melbec Ref No	29664
----------------------	--------------

Validation suspension (N_{V0})			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU		
Vc 1	81	$\bar{X} =$	Vc 1	73	$\bar{X} =$	Vc 1	50	$\bar{X} =$	Vc 1	66	$\bar{X} =$
Vc 2	74	77.5	Vc 2	70	71.5	Vc 2	38	44	Vc 2	62	64
30 ≤ \bar{X} of N_{V0} ≤ 160?			\bar{X} of A is ≥ 0.5 x \bar{X} of N_{V0} ?			\bar{X} of B is ≥ 0.5 x \bar{X} of N_{V0} ?			\bar{X} of C is ≥ 0.5 x \bar{X} of N_{V0} ?		
Yes			Yes			Yes			Yes		

Test suspension

	N	Vc 1	Vc 2	X_{vwm}	2.09E+08	$\lg N =$	8.32
Test suspension (N and N_0):	10^{-6}	224	185	$N_0 = N/10$		$\lg N_0 =$	7.32
	10^{-7}	28	22	$7.17 \leq \lg N_0 \leq 7.70?$		Yes	
				\bar{X} quotient = >5 and <15?		8.18	

Bactericidal activity results

Conc. of the active (%)	Vc 1	Vc 2	$Na = \bar{X} \times 10$	$\lg Na$	$\lg R$ $N_0 =$	7.32	Contact time	Result
RTU	<14	<14	1.40E+02	<2.15	>5.17		5 minutes	Pass

Enterococcus hirae ATCC 10541

Validation and controls									Melbec Ref No		29664		
Validation suspension (Nv ₀)			Experimental conditions control (A)			Neutralizer control (B)			Method validation (C) Product conc: RTU				
Vc 1	96	$\bar{X} =$	Vc 1	85	$\bar{X} =$	Vc 1	94	$\bar{X} =$	Vc 1	110	$\bar{X} =$		
Vc 2	76	86	Vc 2	78	81.5	Vc 2	73	83.5	Vc 2	89		99.5	
30 ≤ \bar{X} of Nv ₀ ≤ 160?			\bar{X} of A is ≥ 0.5 × \bar{X} of Nv ₀ ?			\bar{X} of B is ≥ 0.5 × \bar{X} of Nv ₀ ?			\bar{X} of C is ≥ 0.5 × \bar{X} of Nv ₀ ?				
Yes			Yes			Yes			Yes				

Test suspension

	N	Vc 1	Vc 2	X _{wm}	3.30E+08	lg N =	8.52
Test suspension (N and N ₀):	10 ⁻⁶	>330	316	N ₀ = N/10		lg N ₀ =	7.52
	10 ⁻⁷	47	33	7.17 ≤ lg N ₀ ≤ 7.70?		Yes	
				\bar{X} quotient = >5 and <15?		7.90	

Bactericidal activity results

Conc. of the active (%)	Vc 1	Vc 2	Na = $\bar{X} \times 10$	lg Na	lg R	Contact time	Result	
RTU	<14	<14	1.40E+02	<2.15	N ₀ = 7.52	>5.37	5 minutes	Pass