Test Report: EN 1276:2019

Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas – Test method and requirements (phase 2, step 1)

Identification of the test laboratory: Abbott Analytical Ltd
Unit 2, Hickmans Road, Birkenhead, CH41 1JH, United Kingdom

Identification of the client: Coventry Chemicals Ltd
Woodhams Road, Coventry, CV3 4FX, United Kingdom

Identification of the sample: 19J/037

Name of the product:	Sanitiser Concentrate
Batch number/reference and expiry date (if available):	AQBK1 P32/2
Date of delivery:	06 September 2019
Storage conditions:	Room temperature in darkness
Product diluent recommended by the manufacturer for use:	Not disclosed
Active substance(s) and their concentrations (s) (optional):	Not disclosed
Appearance of the product:	Dark green liquid

Notes:

1) The test results in this report relate only to the sample(s) tested.
2) This test report may not be reproduced except in full, adapted, altered or used to create a derivative work, without written approval from Abbott Analytical Ltd.

Test method and its validation:

Method:	Dilution-neutralisation
Neutraliser:	30.0 g/l Polysorbate 80 + 5.0 g/l Lecithin + 1.0 g/l L-histidine + 1.0 g/l L-cysteine (Neutraliser A)
Neutraliser validation:	Validated in accordance with EN 1276:2019 (5.5.2)

Experimental conditions:

Period of analysis:	02 October 2019 to 04 October 2019
Product test concentration(s):	1:59 v/v (1 part product to 59 parts water)
Diluent used for product test solution(s):	Hard water
Contact time(s):	5 min ± 10 s
Test temperature(s):	20°C ± 1°C
Interfering substance:	3.0 g/l bovine albumin (dirty conditions)
Temperature of incubation:	36°C ± 1°C
Identification of the bacterial strain(s) used:	*Listeria monocytogenes* (NCTC 11994)

Deviations:

1) Non-standard culture media used: Brain Heart Infusion Agar

Remarks:

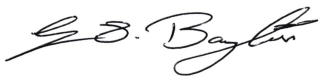
1) All test conditions are as requested by the client, irrespective of whether these are in accordance with EN 1276:2019 (5.4.2) or EN 1276:2019 (5.5.1.1).

Requirements:

The product shall demonstrate at least a 5 decimal log (lg) reduction against every test organism.

Conclusion:

According to EN 1276:2019, Sanitiser Concentrate possesses bactericidal activity when tested at a concentration of 1:59 (1 part product to 59 parts water) with a contact time of 5 minutes at 20°C under dirty conditions against the referenced strain of *Listeria monocytogenes*.

Report prepared by:		**Approved by:**	
Signed:		Signed:	
Name:	Tony Watson	Name:	Gareth Bayliss
Position:	General Manager	Position:	Laboratory Manager
Date:	04 October 2019	Date:	04 October 2019

Results: EN 1276:2019

RST 002 (Issue 4)

Test organism:	*Listeria monocytogenes*		(NCTC 11994)
Date of test:	2 October 2019		
Test temperature:	20°C ± 1°C	Incubation temperature:	36°C ± 1°C
Dilution-neutralisation method:	Pour plate	Number of plates:	1 / ml
Neutraliser:	A	Test conditions:	Dirty conditions

Validation and controls:

Validation suspension (Nv_o)			Experimental conditions control (*A*)			Neutraliser or filtration control (*B*)			Method validation (*C*) Product conc.: *1:59*		
*Vc*1	*103*	$\bar{n}$ =	*Vc*1	*94*	$\bar{n}$ =	*Vc*1	*103*	$\bar{n}$ =	*Vc*1	*104*	$\bar{n}$ =
*Vc*2	*97*	100	*Vc*2	*100*	97	*Vc*2	*103*	103	*Vc*2	*97*	100.5
$30 \le \bar{n}$ of $Nv_o \le 160$?			$\bar{n}$ of $A \ge 0.5 \times \bar{n}$ of Nv_o ?			$\bar{n}$ of $B \ge 0.5 \times \bar{n}$ of Nv_o ?			$\bar{n}$ of $C \ge 0.5 \times \bar{n}$ of Nv_o ?		
☒ yes ☐ no			☒ yes ☐ no			☒ yes ☐ no			☒ yes ☐ no		

Test suspension (*N* and N_o):

N	*Vc*1	*Vc*2			
10^{-6}	*>330*	*>330*	$\bar{n}$ wm = 4.45×10^8 ;	lg *N* =	8.65
10^{-7}	*43*	*46*	$N_o = N / 10$;	lg N_o =	7.65
			$7.17 \le \lg N_o \le 7.70$?	☒ yes	☐ no

Test:

Conc. of the product	Contact time	*Vc*1	*Vc*2	*Na* ($\bar{n} \times 10$)	lg *Na*	lg *R* (lg N_o - lg *Na*)
1:59	*5 min*	*0*	*0*	<140	<2.15	>5.50

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Explanations:

Vc	count per ml (one plate or more)
$\overline{\nu}$	average of *Vc*1 and *Vc*2 (1 + 2 duplicate)
$\overline{\nu}$ wm	weighted mean of $\overline{\nu}$
N	number of cells per ml in the test suspension
N_o	number of cells in the test mixture at the beginning of the contact time ($N_o = N / 10$)
Na	number of survivors per ml in the test mixture at the end of the contact time (before neutralisation or filtration)
R	reduction ($\lg R = \lg N_o - \lg Na$)
Nv	number of cells per ml in the validation suspension
Nv_o	number of cells in the validation mixtures at the beginning of the contact time ($Nv_o = Nv / 10$)
A	number of survivors per ml in the experimental conditions control mixture
B	number of survivors per ml in the neutraliser or filtration control mixture
C	number of survivors per ml in the method validation mixture

All test results have an associated uncertainty of measurement, details of which are available on request.

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