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:	09 October 2019 to 11 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:	*Salmonella enterica* subsp *enterica* serovar Typhimurium (NCTC 74)

Deviations: None

Remarks:

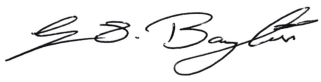
1) All test conditions are as requested by the client, irrespective of whether these are in accordance with EN 1276:2019 (5.4.2) or EN 1276:2019 (5.5.1.1).

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 *Salmonella* Typhimurium.

Report prepared by:		**Approved by:**	
Signed:		Signed:	
Name:	Tony Watson	Name:	Gareth Bayliss
Position:	General Manager	Position:	Laboratory Manager
Date:	14 October 2019	Date:	14 October 2019

Abbott Analytical Ltd
Unit 2, Hickmans Road,
Birkenhead, CH41 1JH, United Kingdom

T: +44 (0)151 345 6753
E: enqs@abbottanalytical.co.uk
W: www.abbottanalytical.co.uk

Registered address: Kemp House, 160 City Road,
London, EC1V 2NX, United Kingdom

A company registered in England and Wales
Company number: 10031406

Results: EN 1276:2019

RST 002 (Issue 4)

Test organism:	*Salmonella* Typhimurium		(NCTC 74)
Date of test:	09 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	*107*	$\overline{n}$ =	*Vc*1	*104*	$\overline{n}$ =	*Vc*1	*118*	$\overline{n}$ =	*Vc*1	*113*	$\overline{n}$ =
*Vc*2	*111*	109	*Vc*2	*111*	107.5	*Vc*2	*112*	115	*Vc*2	*109*	111
$30 \le \overline{n}$ of $Nv_o \le 160$?			$\overline{n}$ of $A \ge 0.5 \times \overline{n}$ of Nv_o ?			$\overline{n}$ of $B \ge 0.5 \times \overline{n}$ of Nv_o ?			$\overline{n}$ of $C \ge 0.5 \times \overline{n}$ of Nv_o ?		
☒ yes ☐ no			☒ yes ☐ no			☒ yes ☐ no			☒ yes ☐ no		

Test suspension (*N* and N_o):

N	*Vc*1	*Vc*2	$\overline{n}$ wm = 4.95×10^8 ; lg *N* = 8.69
10^{-6}	*>330*	*>330*	$N_o = N / 10$; $\lg N_o$ = 7.69
10^{-7}	*49*	*50*	$7.17 \le \lg N_o \le 7.70$? ☒ yes ☐ no

Test:

Conc. of the product	Contact time	*Vc*1	*Vc*2	*Na* ($\overline{n} \times 10$)	lg *Na*	lg *R* (lg N_o - lg *Na*)
1:59	*5 min*	*0*	*0*	<140	<2.15	>5.54

Abbott Analytical Ltd
Unit 2, Hickmans Road,
Birkenhead, CH41 1JH, United Kingdom

T: +44 (0)151 345 6753
E: enqs@abbottanalytical.co.uk
W: www.abbottanalytical.co.uk

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.

Abbott Analytical Ltd
Unit 2, Hickmans Road,
Birkenhead, CH41 1JH, United Kingdom

T: +44 (0)151 345 6753
E: enqs@abbottanalytical.co.uk
W: www.abbottanalytical.co.uk