

Castle Chemicals Pty Ltd.
 16 Rural Drive
 Sandgate NSW, 2304
 AU

Client Account Number: A00806719GCQ
 Eurofins Quote Number: XC8UPH20002304

Eurofins Sample Number NJ20AB2901-1	
Original Received Date:	06-Oct-2020
Description:	Hazep Red/ Gratis Hand Sanitiser; Exp date: 22-Sep-2022
Lot Number:	Lab 290920
Containers Submitted:	1 Bottle(s)
Protocol Reference: EN 13727	

Analysis	Result
Time Kill Test	See Attached Report for Result
Refer to Attachment # 1	----
Method: TMD 110, EN 13727	
Analysis Date: 09-Oct-2020	

Supplemental Information
Samples were tested as received. Specifications (if) reported are as provided by the client.

Contracted Company: Eurofins ams Laboratories Sydney
8, Rachael Close, Silverwater, NSW 2128 Australia amslabs@eurofins.com

TGA Licence No: MI-15112007-LI-002191-11 APVMA Licence No: 6139
Questions about this report should be directed to your project manager or the general email listed above.

Test Conditions	
Test Concentration	Neat
Contact Time	1 Minute
Neutraliser/ Dilution	T6 1:10- E.coli, P.aeruginosa and E.hirae T5 1:100- S.aureus
Test Conditions	Clean (0.03% BSA)
Test Temperature	Room Temperature

RESULTS

Table 1: Surviving organisms after exposure to the Product under Test			
Organism	Inoculum Control Count	Surviving Test Organisms	
	CFU/mL (Log ₁₀)	1 Minute	
		CFU/mL (Log ₁₀)	Log reduction
<i>S.aureus</i> ATCC 6538	1.45 x 10 ⁷ (7.16)	<100 (2.00)	>5.16
<i>E.coli</i> NCTC 10538	1.95 x 10 ⁷ (7.29)	<10 (1.00)	>6.29
<i>P.aeruginosa</i> ATCC 15442	2.35 x 10 ⁷ (7.37)	9.00 x 10 ¹ (1.95)	5.42
<i>E.hirae</i> ATCC 10541	2.90 x 10 ⁷ (7.46)	<10 (1.00)	>6.46

CFU = Colony Forming Unit

Table 2 Neutralisation Validation Results					
Organisms	Validation suspension (Nv)	Experimental condition (A)	Neutralizer control (B)	Method validation (C)	Pass/Fail
<i>S.aureus</i> ATCC 6538	36	38	41	33	Pass
<i>E.coli</i> NCTC 10538	24	19	22	22	Pass
<i>P.aeruginosa</i> ATCC 15442	35	31	35	20	Pass
<i>E.hirae</i> ATCC 10541	44	28	27	23	Pass

A, B & C must be $\geq 0.5Nv$

COMMENTS: The product showed greater than 6 log reduction against *E.coli* and *E.hirae*, greater than 5 log reduction against *S.aureus*, and 5.42 log reduction against *P.aeruginosa* at 1 Minute contact time.