Technical Service



Reference No. M20/226 Assessment of 'Hand Sanitizer' for 'Sanitiser test'

Client:		Testing Laboratory:			
Duralex Paints Pty Ltd 3/5 Muriel Ave Rydalmere NSW 2116		Thor Specialties Pty. Ltd. Technical Services Laboratory 67 Newton Road Wetherill Park New South Wales 2164			
Contact:	Vivien Kluger	Contact:	Dirk Sisson		
Telephone:	02 9638 0568	Telephone:	02 9725 1177		
Email:	chemist@duralexpaints.com.au	Email:	dirks@thorchem.com.au		

OBJECTIVES:

The assessment of 'Hand Sanitizer' sample for antimicrobial activity at full strength.

CONCLUSIONS:

The results show that when tested undiluted at contact time of 30 seconds using the method described, the sample exhibited >99.99% antimicrobial activity against *S. aureus* and *E. coli*.

Please note that any conclusions and recommendations, either made or implied, are based on information drawn from examination of the samples identified in this report only. These results may be influenced by, for example, contamination level variations in raw materials, any stored component solutions and manufacturing equipment, or changes in formulation, manufacturing procedure or raw material suppliers. The data contained in the following report is based on our current test methods and our current knowledge and experience and relate only to the samples tested.

In view of the many factors that may affect processing and application of products, the data does not relieve manufacturers from carrying out their own tests; neither does the data imply or guarantee of certain properties, nor the suitability of the product for specific purposes nor agreed contractual quality of the product.

Thor Specialties Pty Limited. A.B.N. 66 001 558 032

- 67 Newton Road, Wetherill Park NSW 2164, Australia
- 66/574 Plummer St., Port Melbourne VIC 3207, Australia
- M 15 Kalmia Street, Ellerslie, Auckland 5, New Zealand
- +61 2 9725 1177 +61 3 9078 7905 +64 9 579 5037

+61 2 9725 5677 +61 3 9646 6748 APPENDIX A: Laboratory Analysis Certificate



THOR TECHNICAL SERVICE

REPORT NO. M20/226

PAGE NO. 1 of 2

CERTIFICATE OF ANALYSIS

Analysis performed for:

Duralex Paints Pty Ltd

Testing Laboratory:

Thor Specialties Pty. Ltd. Technical Services Laboratory 67 Newton Road Wetherill Park New South Wales 2164

SAMPLE DESCRIPTION:

The sample detailed in the results table was received 16 April 2020 and tested 17 April 2020.

EXAMINATIONS CONDUCTED:

In-house Method: TM-14: Sanitiser test (based on BS 6471: 1984- Determination of the antimicrobial value of QAC disinfectant formulations)

RESULTS OF ANALYSIS:

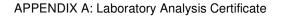
Table No.1 Results for Antimicrobial tests

SAMPLE	Contact time	Test Organism	Control Inoculum (cfu/mL)	Surviving organisms, (cfu/mL)	% Kill rate
		St.aureus	2.3 x 10 ⁷	2.2 x 10 ⁷	4.35
Diluent Control		E. coli	2.4 x 10 ⁷	2.4 x 10 ⁷	0.00
Hand sanitiser	30 sec	St. aureus		<10	>99.9999
	30 sec	E. coli		<10	>99.9999

Table No.2 Product validation

		Dilution Validated for test	<u>cfu/mL</u> (average of duplicate plates)	% Recovery
Pontono Solino	St. aureus		54	
Peptone Saline	E. coli		59	
Inactivator without test	St. aureus		52	96
product	E. coli		58	98
Hand sanitiser	St. aureus	1:10	53	98
	E. coli	1:10	56	95

The results of the validation test indicate a dilution of 1:10 was valid.





THOR TECHNICAL SERVICE

REPORT NO. M20/226

PAGE NO. 2 of 2

REPORT REVIEW:

The work detailed in this report has been conducted according to the standard test methods listed. All results have been checked and reviewed by approved laboratory personnel. The data contained in this report is based on our current test methods, knowledge and experience and relate only to the samples tested.

PREPARED BY:

Annia

Date

27 April 2020

Anj Prince Technical Coordinator

CHECKED BY:

28

Date

28 April 2020

Noel del Rosario **Applications Technical Manager**

APPENDIX B: Test Methods



THOR TECHNICAL SERVICE REPORT NO. M20/226

PAGE NO. 1 of 1

In-house Method Summary: TM-14

TEST CULTURES

Escherichia coli ATCC 11229 *Staphylococcus aureus* ATCC 6538

INACTIVATOR

Nutrient broth containing 6% Polysorbate Tween[®] 80 and 0.6% lecithin (Diluent 6)

CONTACT TIME

30 seconds

INOCULUM PREPARATION

The cultures for inoculum were prepared by daily subculturing into fresh nutrient broth No. 2 on two consecutive days. 2mL of each broth culture was mixed with 8mL synthetic hard water. Each mixture was used as inoculum for the test.

TEST PROCEDURE

The samples for evaluation were tested undiluted. 1mL of the inoculum was added to 9mL of the undiluted product under test as well as a diluent control. The mixtures were vortexed and allowed a specified contact time after which 1mL of the culture/product mixture was transferred into 9mL inactivator broth, further dilutions in inactivator or diluent were made if required. Duplicate 1mL pour plates with Nutrient agar were then prepared and incubated inverted at $32.5 \pm 2.5^{\circ}$ C for 48h. Following incubation, the resultant colonies (surviving organisms) were counted and compared to the controls to determine the kill rate for the product under test.