



Portion 5, Corporate Park South, Midrand  
Postnet Suite 125, Private bag X3, The Reeds  
Tel: +27 12 685 0800  
E-mail: Microlab@aspirata.co.za  
Web address: www.aspirata.co.za

**EN 1650: FUNGICIDAL EFFICACY** ————— **FINAL TEST REPORT**

Contact Person: **KYLE MOORE**  
Company: **BLULYTE (PTY) LTD**  
**7 DIPKA ROAD**  
**STIKLAND INDUSTRIAL**  
**CAPE TOWN**  
**7530**

Lab Number : **M20-12106**  
Order reference : **BLU026**  
Sample Date : **25/09/2020**  
Submit Date : **25/09/2020**  
Report Date : **12/10/2020**

**Disclaimer:**

The results reported relate only to the samples tested and is expressed on an 'as received' basis unless specified otherwise. The test report shall not be reproduced except in full, without written approval of the Laboratory.

**SANS 51650:2011 - Quantitative suspension test for the evaluation of fungicidal and yeasticidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas.**

<b>Product Identification:</b>	<b>BLULYTE HOCL</b>
<b>Active Substances:</b>	HYPOCHLOROUS ACID

<b>Batch Number:</b>	NOT SUPPLIED
<b>Expiry Date:</b>	NOT SUPPLIED
<b>Storage Conditions:</b>	AMBIENT OUT OF DIRECT SUNLIGHT
<b>Recommended Diluent:</b>	NONE

<b>Appearance of Product:</b>	SUITABLE FOR TESTING
<b>Diluent Used in Test:</b>	STERILE DISTILLED WATER
<b>Product Concentrations:</b>	NEAT
<b>Appearance of Dilutions:</b>	HOMOGENOUS SUSPENSION
<b>Interfering Substances:</b>	0,3G BOVINE SERUM ALBUMIN
<b>Appearance during Test:</b>	HOMOGENOUS SUSPENSION
<b>Method:</b>	DILUTION NEUTRALIZATION
<b>Neutralizer / Rinsing Liquid:</b>	UNIVERSAL NEUTRALISER

<b>Analysis performed by:</b>	J. JACOBS
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## **Conclusion:**

### **Validations and Controls:**

All validations and controls were within specification during the test

BLULYTE HOCL was able to eliminate >99,99% of *Aspergillus brasiliensis* & *Candida albicans* in a 15 minute contact period under simulated clean conditions with the addition of 0,3g/L bovine serum albumin as required by SANS51650 at the lowest tested concentration of 200ppm.

The product BLULYTE HOCL complies with the minimum performance requirement for surface disinfectants as prescribed by SANS51650 for use in industrial, institutional and domestic areas.



Johan Jacobs  
Technical Advisor

**Organism:** **Aspergillus brasiliensis ATCC16404**    **Replicate:**    **1 OF 2**

<b>Test Date:</b> 01/10/2020	<b>Test Temp.</b> 20 °C	<b>Incubation Temp.</b> 30 °C
<b>Test conditions:</b> CLEAN	<b>Contact time:</b> 15 MINUTES	<b>Analyst:</b> J. JACOBS

<b>Organism suspension</b>	10 <sup>-5</sup>	>150	<b>Organism suspension (N)</b>	2.45 X 10 <sup>7</sup>	Log	7.39	
		>150		<b>Test suspension (N<sub>o</sub>)</b>	2.45 X 10 <sup>6</sup>	Log	6.39
	10 <sup>-6</sup>	28	<b>6.17 ≤ LgN<sub>o</sub> ≤ 6.70?</b>	Yes		Control	Pass
		21	<b>Validation suspension</b>	53	58	Control	Pass

	V <sub>c1</sub>	V <sub>c2</sub>	$\bar{X}$	$\bar{X} \geq 0.5XN_{v0}$	Control
<b>Experimental condition control (A)</b>	49	57	53	Yes	Pass
<b>Neutralizer control (B)</b>	41	48	44.5	Yes	Pass
<b>Methoc Validation (C)</b>	44	42	43	Yes	Pass

Concentration	V <sub>c1</sub>	V <sub>c2</sub>	N <sub>a</sub>	Log N <sub>a</sub>	Log <sub>red</sub>	% Kill Rate	Compliance
80% @ 400ppm	0	0	<10	<1	>4	>99.99%	PASS
60% @ 300ppm	0	0	<10	<1	>4	>99.99%	PASS
50% @ 250ppm	3	9	120	2.0792	4.3	>99.99%	PASS
40% @ 200ppm	11	13	240	2.3802	4.0	>99.99%	PASS
10% @ 50ppm	>300	>300	>3000	>3.45	<4	<99.9%	FAIL

Lowest Effective concentration	200ppm
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**Organism:** **Aspergillus brasiliensis ATCC16404**    **Replicate:**    **1 OF 2**

<b>Test Date:</b> 01/10/2020	<b>Test Temp.</b> 20 °C	<b>Incubation Temp.</b> 30 °C
<b>Test conditions:</b> CLEAN	<b>Contact time:</b> 15 MINUTES	<b>Analyst:</b> J. JACOBS

<b>Organism suspension</b>	10 <sup>-5</sup>	>150	<b>Organism suspension (N)</b>	2.45 X 10 <sup>7</sup>	Log	7.39	
		>150		<b>Test suspension (N<sub>o</sub>)</b>	2.45 X 10 <sup>6</sup>	Log	6.39
	10 <sup>-6</sup>	28	<b>6.17 ≤ LgN<sub>o</sub> ≤ 6.70?</b>	Yes		Control	Pass
		21	<b>Validation suspension</b>	53	58	Control	Pass

	V <sub>c1</sub>	V <sub>c2</sub>	$\bar{X}$	$\bar{X} \geq 0.5XN_{v0}$	Control
<b>Experimental condition control (A)</b>	49	57	53	Yes	Pass
<b>Neutralizer control (B)</b>	41	48	44.5	Yes	Pass
<b>Methoc Validation (C)</b>	47	41	44	Yes	Pass

Concentration	V <sub>c1</sub>	V <sub>c2</sub>	N <sub>a</sub>	Log N <sub>a</sub>	Log <sub>red</sub>	% Kill Rate	Compliance
80% @ 400ppm	0	0	<10	<1	>4	>99.99%	PASS
60% @ 300ppm	0	0	<10	<1	>4	>99.99%	PASS
50% @ 250ppm	6	8	140	2.1461	4.2	>99.99%	PASS
40% @ 200ppm	9	10	190	2.2788	4.1	>99.99%	PASS
10% @ 50ppm	>300	>300	>3000	>3.45	<4	<99.9%	FAIL

Lowest Effective concentration	200ppm
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<b>Organism:</b>	<b>Candida albicans ATCC10231</b>	<b>Replicate:</b>	<b>1 OF 2</b>
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<b>Test Date:</b>	01/10/2020	<b>Test Temp.</b>	20 °C	<b>Incubation Temp.</b>	30 °C
<b>Test conditions:</b>	CLEAN	<b>Contact time:</b>	15 MINUTES	<b>Analyst:</b>	J. JACOBS

<b>Organism suspension</b>	10 <sup>-5</sup>	231	<b>Organism suspension (N)</b>	2.27 X 10 <sup>7</sup>	Log	7.36			
		222		<b>Test suspension (N<sub>o</sub>)</b>	2.27 X 10 <sup>6</sup>	Log	6.36		
	10 <sup>-6</sup>	27			<b>6.17 ≤ LgN<sub>o</sub> ≤ 6.70?</b>		Yes	Control	Pass
		21			<b>Validation suspension</b>		64	55	Control

	V <sub>c1</sub>	V <sub>c2</sub>	$\bar{X}$	$\bar{X} \geq 0.5XN_{v0}$	Control
<b>Experimental condition control (A)</b>	57	52	54.5	Yes	Pass
<b>Neutralizer control (B)</b>	46	49	47.5	Yes	Pass
<b>Methoc Validation (C)</b>	43	51	47	Yes	Pass

Concentration	V <sub>c1</sub>	V <sub>c2</sub>	N <sub>a</sub>	Log N <sub>a</sub>	Log <sub>red</sub>	% Kill Rate	Compliance
80% @ 400ppm	0	0	<10	<1	>4	>99.99%	PASS
60% @ 300ppm	0	0	<10	<1	>4	>99.99%	PASS
50% @ 250ppm	0	0	<10	<1	>4	>99.99%	PASS
40% @ 200ppm	0	0	<10	<1	>4	>99.99%	PASS
10% @ 50ppm	>300	>300	>3000	>3.45	<4	<99.9%	FAIL

Lowest Effective concentration	200ppm
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<b>Organism:</b>	<b>Candida albicans ATCC10231</b>	<b>Replicate:</b>	<b>1 OF 2</b>
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	10 <sup>-6</sup>	27			<b>6.17 ≤ LgN<sub>o</sub> ≤ 6.70?</b>		Yes	Control	Pass
		21			<b>Validation suspension</b>		64	55	Control

	V <sub>c1</sub>	V <sub>c2</sub>	$\bar{X}$	$\bar{X} \geq 0.5XN_{v0}$	Control
<b>Experimental condition control (A)</b>	57	52	54.5	Yes	Pass
<b>Neutralizer control (B)</b>	46	49	47.5	Yes	Pass
<b>Methoc Validation (C)</b>	43	51	47	Yes	Pass

Concentration	V <sub>c1</sub>	V <sub>c2</sub>	N <sub>a</sub>	Log N <sub>a</sub>	Log <sub>red</sub>	% Kill Rate	Compliance
80% @ 400ppm	0	0	<10	<1	>4	>99.99%	PASS
60% @ 300ppm	0	0	<10	<1	>4	>99.99%	PASS
50% @ 250ppm	0	0	<10	<1	>4	>99.99%	PASS
40% @ 200ppm	0	0	<10	<1	>4	>99.99%	PASS
10% @ 50ppm	>300	>300	>3000	>3.45	<4	<99.9%	FAIL

Lowest Effective concentration	200ppm
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