



**SUBJECT** Microbiological Test

**TEST LOCATION** TÜV SÜD China

TÜV SÜD Products Testing (Shanghai) Co., Ltd.  
B-3/4, No.1999 Du Hui Road, Minhang District  
Shanghai 201108, P.R. China

**CLIENT NAME** Chiaphua Industries Limited

**CLIENT ADDRESS** Unit A, 2/F, Chiaphua Industries Building, Nos 8-10 Siu Lek Yuen Road,  
Shatin, New Territories, Hong Kong

**TEST PERIOD** 03-Jul-2020~08-Jan-2021

**TEST REQUEST** Continued antibacterial activity - with reference to WS/T 650-2019

**Prepared By**

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(Bella Xu)  
Report Drafter

**Authorized By**

*Leo Liu*

(Leo Liu)  
Authorized Signatory

**Note:** (1) General Terms & Conditions as mentioned overleaf. (2) The results relate only to the items tested.(3) The test report shall not be reproduced except in full without the written approval of the laboratory.(4) Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

**RECEIPT DATE /TEST DATE**

03-Jul-2020/ 03-Jul-2020

**THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED**

**BY/ ON BEHALF OF THE CLIENTS AS:**

Sample Name: GERMAGIC MAP1-Pro+  
Sample Specification: Liquid  
Batch No./Date: HKUST20200420GMTP  
Manufactory: /

SAMPLE NO.	DESCRIPTION	PHOTOGRAPH
721655096-1	Sample in the bottle	

**TEST METHOD(S)**

Continued antibacterial activity  
- with reference to WS/T 650-2019 Evaluating method for efficacy of antibacterial and bacteriostasis 5.2.7

**REQUIREMENT**

1. Continued antibacterial activity

Product dilution: Neat

Sample solution contact time: 0.4 mL sample solution to sterile carrier at room temperture for 180 days

Organisms contact time: 0.4 mL organisms solution to sterile carrier for 9 minutes 55 seconds

Neutralizer: 1%Saponin+ 4%lecithin+6%TW80 of D/E broth

2.Verification test for neutralizer

Contact time: 10 minutes

Neutralizer : 1%Saponin+ 4%lecithin+6%TW80 of D/E broth

Test group: Group 1: Neutralizer+ Bacterial suspension; Group 2: (Antibacterial agent +Neutralizer)+ Bacterial suspension; Group 3: Diluent+ Bacterial suspension; Group 4: Diluent+ Neutralizer+ Medium

**TEST ORGANISMS**

*Staphylococcus aureus* ATCC 6538



**TEST RESULT(S)**

1. Continued antibacterial activity

Test Organisms	Test times	Inoculation concentration (CFU/mL)	Contact time	Survival bacteria from control (CFU/piece)	Survival bacteria from sample (CFU/piece)	Killing rate(%)
<i>Staphylococcus aureus</i> ATCC 6538	1	1.9×10 <sup>5</sup>	9 minutes 55 seconds	6.2×10 <sup>4</sup>	<10	>99.9
	2		9 minutes 55 seconds	6.9×10 <sup>4</sup>	<10	>99.9
	3		9 minutes 55 seconds	6.2×10 <sup>4</sup>	<10	>99.9

2.Verification test for neutralizer

TEST ORGANISMS	Inoculation concentration (CFU/mL)	Test group	Recovered colonies (CFU/mL)	Acceptance Criteria	Comment
<i>Staphylococcus aureus</i> ATCC 6538	1.6×10 <sup>6</sup>	Group 1	3.2×10 <sup>4</sup>	1~9×10 <sup>4</sup> CFU/mL, the error of three groups should <15%	Pass
			3.2×10 <sup>4</sup>		
			3.3×10 <sup>4</sup>		
		Group 2	3.3×10 <sup>4</sup>		
			3.2×10 <sup>4</sup>		
			3.0×10 <sup>4</sup>		
		Group 3	3.1×10 <sup>4</sup>		
			3.2×10 <sup>4</sup>		
			3.3×10 <sup>4</sup>		
		Group 4	0	No colony growth	
			0		
			0		

Note:

- 1.CFU: Colony forming unit
- 2.Conclusion: Killing rate is more than 99.9%. It is determined that the product has a continued antibacterial activity for at least 180 days at room temperature.
- 3.\* This report replaces report 721655096-1.3, 721655096-1.3 is obsolete
- 4.This report is for internal use only such as internal scientific research, education, quality control, product R&D.

-END OF THE TEST REPORT-