

SUBJECT Microbiological Test

TEST LOCATION TÜV SÜD China
TÜV SÜD 中国

TÜV SÜD Products Testing (Shanghai) Co., Ltd.
南德商品检测（上海）有限公司
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邮编:201108

CLIENT NAME Treasure Purification Technology (HK) Limited

CLIENT ADDRESS Unit C, 4th Floor, China Insurance Building, 48 Cameron Road, Tsim Sha Tsui, Kowloon, Hong Kong

TEST PERIOD 06-Jul-2023~16-Jan-2024

TEST REQUEST Continued antibacterial activity – according to WS/T 650-2019

Prepared By

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Report Drafter

Authorized By

张闯

(Zhang Chuang)
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.

SAMPLE SOURCE/ RECEIPT DATE / TEST DATE

Logistics Express / 06-Jul-2023/06-Jul-2023

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED

BY/ ON BEHALF OF THE CLIENTS AS:

Sample Name: TX-5 Nano Catalyst /Anti-microbial Coating
Sample Specification: TX-5 Series
Batch No./Date: 28-06-2023
Manufactory: Treasure Purification Technology (HK) Limited

SAMPLE NO.	DESCRIPTION	PHOTOGRAPH
721682166	Sample in the bottle	

TEST METHOD(S)

Continued antibacterial activity
- according 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 temperature for 180 days

Organisms contact time: 0.4 mL organisms solution to sterile carrier for 3 hours

Neutralizer: 2% histidine+8%lecithin+10%Tween 80 of D/E broth

2.Verification test for neutralizer

Contact time: 10 minutes

Neutralizer : 2% histidine+8%lecithin+10%Tween 80 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)

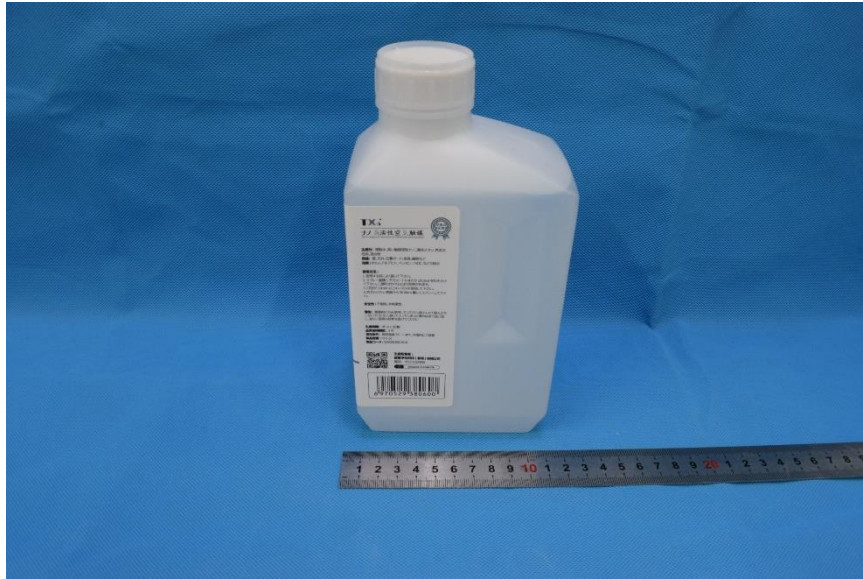
1. Continued antibacterial activity

Test Organisms	Test times	Inoculation concentration (CFU/mL)	Organisms contact time	Survival bacteria from control (CFU/piece)	Survival bacteria from sample (CFU/piece)	Killing rate(%)
<i>Staphylococcus aureus</i> ATCC 6538	1	4.5×10 ⁴	3 hours	1.6×10 ⁴	1.2×10 ³	92.50
	2		3 hours	1.8×10 ⁴	1.3×10 ³	92.78
	3		3 hours	1.7×10 ⁴	1.4×10 ³	91.76

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	1.1×10 ⁶	Group 1	2.1×10 ⁴	1~9×10 ⁴ CFU/mL, the error of three groups should <15%	Pass
			2.0×10 ⁴		
			1.9×10 ⁴		
		Group 2	2.1×10 ⁴		
			2.1×10 ⁴		
			2.1×10 ⁴		
		Group 3	2.1×10 ⁴		
			2.0×10 ⁴		
			2.1×10 ⁴		
		Group 4	0	No colony growth	
			0		
			0		

Note: The samples pictured below have been confirmed by the customer to be of the same material as the sample tested.



-END OF THE TEST REPORT-

