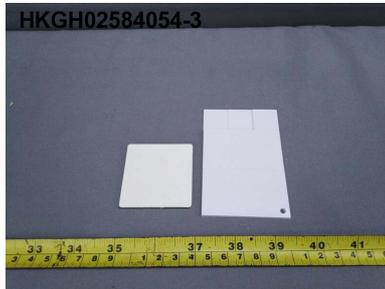


TEST REPORT

Applicant: MID OCEAN BRANDS BV
7/F, KINGS TOWER,
111 KING LAM STREET,
CHEUNG SHA WAN,
KOWLOON
HK
Attn: GARY YUEN

Number: HKGH02584054
Date: May 07, 2020

Submitted sample said to be :
Item Name : **anti-bacterial pen**
Model No. : **MO9951**
Quantity : 1 piece & parts
Vendor : 108694
Country of Origin : China



Conclusion:

The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

<u>Requirement</u>	<u>Result</u>
(1) ISO 22196:2011 - Measurement of antibacterial activity on plastics surfaces	See details enclosed

For and on behalf of :
Intertek Testing Services HK Ltd.

Cindy I.K. Chan
Vice President



TEST REPORT

Number : HKGH02584054

(1) Measurement of antibacterial activity on plastics surfaces

Test Standard : International Standard ISO 22196:2011.

Neutralizing solution: D/E neutralizing broth
 Incubation temperature: 35°C
 Incubation period: 48 hours
 Agar medium: Plate Count Agar
 Test culture: *Escherichia coli* (ATCC 8739) <concentration of inoculum: 2.4x10⁵ CFU/mL>
Staphylococcus aureus (ATCC 6538) <concentration of inoculum: 7.6x10⁵ CFU/mL>
 Test specimen: 50 mm x 50 mm flat square of submitted sample
 50 mm x 50 mm flat square of untreated sample as control
 Test condition: 0.4 mL bacterial inoculum was added onto surface of the test specimen

Result :

Test microorganism	U _o Criteria: 3.7 ≤ U _o ≤ 4.4	U _t Criteria: U _t ≥ 1.8	A _t	Log R	% R	Comment*
<i>Escherichia coli</i>	4.1	5.8	0	5.8	99.999	Significant
<i>Staphylococcus aureus</i>	4.0	4.0	0	4.0	99.99	Significant

Remark : U_o = Log (bacteria recovered from untreated specimen in CFU/cm²) immediately after inoculation
 U_t = Log (bacteria recovered from untreated specimen in CFU/cm²) after 24 hours incubation
 A_t = Log (bacteria recovered from treated specimen in CFU/cm²) after 24 hours incubation
 R = Log reduction value (U_t - A_t)

Reference Rating* :	%R	Antibacterial activity
	<90%	Not acceptable
	>90 - <99%	Insignificant
	≥99.9%	Significant

Sample received condition: Sample in closed plastic bag.

Date sample received : Apr 24, 2020
 Testing period : Apr 27, 2020 to May 07, 2020

End of report

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