

## Test Report

Customer Name: Thanmatra Life  
Thanmatra Innovations Pvt Ltd,  
Cabin E, Brindhavan Business center,  
Manimala Road, Edapally,  
Kochi-682024, Kerala.

Sample particular : "Thanmatra Life Herba Nuriel Smart Sanitizer"  
Test parameter : Antibacterial efficiency activity\*  
(1) *Staphylococcus aureus* ATCC 6538  
Test Method : JIS Z 2801\*  
Biocare ID. No. : Ind/2122/083  
Sample received date : 29/05/2021  
Test start date : 31/05/2021  
Report date : 09/06/2021  
Report status : Final  
Packing : Satisfactory

### Test Conditions

Test Size : 50 x 50 mm  
Contact time : 08 hours at 37°C  
Media : Soyabean casein digest broth  
: Soyabean casein digest Agar

### Test method summary:

#### JIS Z 2801 (Modified):

The JIS method Z 2801 is a quantitative test designed to assess the performance of antimicrobial finishes on hard, non-porous surfaces. The method can be conducted using contact times ranging from ten minutes up to 24 hours. For a JIS Z 2801 test, non-antimicrobial control surfaces are used as the baseline for calculations of microbial reduction.



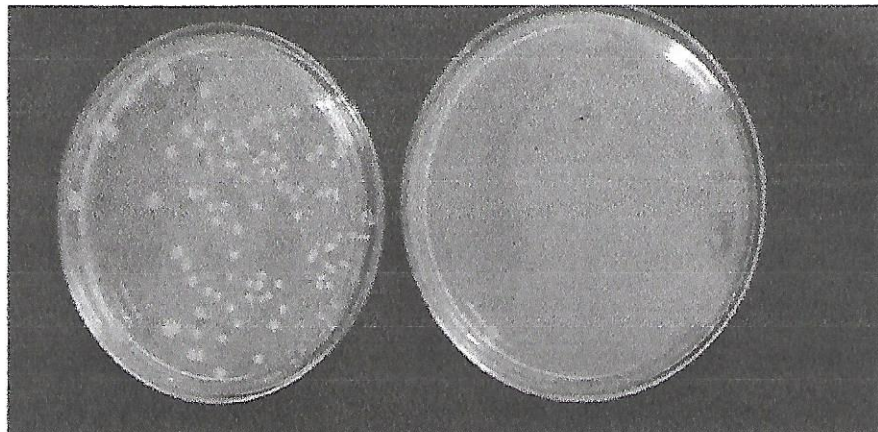
### Summary of the Procedure

1. The test microorganism is prepared, by growth in a liquid culture medium.
2. The suspension of test microorganism is standardized by dilution in a broth medium.
3. Control and test surfaces (Glass surfaces) are inoculated with respective microorganism, and then the microbial inoculum is covered with a thin, sterile film. Covering the inoculum spreads it, prevents it from evaporating, and ensures close contact with the antimicrobial surface.
4. Microbial concentrations are determined at "time zero" by elution followed by dilution and plating to growth medium.
5. Inoculated, covered control and antimicrobial test surfaces are allowed to incubate undisturbed in a humid environment for 08 hours.
6. After incubation, microbial concentrations are determined. Reduction of microorganisms relative to the control surface is calculated and reported.

### Picture of plates

Control

Test



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**RESULT:**

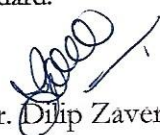
Test organism (Bacterial cells inoculated per test piece)	Control Sample. (08 hrs result of average viable cells per test piece)	Treated sample (08 hrs result of average viable cells per test piece)	Antimicrobial activity (Criteria not less than 2)	% Reduction <sup>+</sup>
<i>S. aureus</i> (ATCC 6538) 3 X 10 <sup>5</sup> cfu Log = 5.47	4.4 X 10 <sup>5</sup> cfu /ml Log = 5.651	<01 cfu /ml Log = 0.00	5.65	99.99

End Of The Test Report

REMARKS:

- 1) Collected sample received.
- 2) \*Above tested parameters are not part of NABL scope.
- 3) <sup>+</sup> included in report as per customer's requirement. It is not a part of the Standard.



  
 Dr. Dilip Zaveri  
 Authorized Signatory  
 Biocare Research (I) Pvt. Ltd.