

## TEST REPORT

<p>Client:</p> <p style="text-align: center;"><b>M/s Ion Silver AB</b> Produktvagen 12 B, 246 43 Loddekopinge Sverige / SWEDEN Tel/Phone: +46 (0)46 712 360 Fax: +46 (0)46 712 380</p> <p>Email - <a href="mailto:info@ion-silver.com">info@ion-silver.com</a> Web- <a href="http://www.ion-silver.com">www.ion-silver.com</a> Contact Person: Mr. Anders Sultan</p>	<p>Test Report No. : <b>SRI / TR / 17-18 / 14</b></p> <hr/> <p>Report date : 24-05-2017</p> <hr/> <p>Our Ref Qtn : SRI/QTN/17-18/ 04/ 04</p> <hr/> <p>Order ID : SRI-ISAB-EC -591</p> <hr/> <p>Your PO No. : 002/ 15-05-2017</p>		
<p><b>TEST TYPE:</b> Liquid Suspension Time Kill Study -Quantitative Test Based On <b>ASTM 2315 TEST METHOD</b> of Colloidal Silver Product of given concentrations – 0.19 ml, 0.39 ml and 0.65 ml against following microorganisms: E. coli at 3 Contact time points: 45 mins, 60 mins and 90 mins.</p>			
<b>SAMPLE DETAILS</b>	<b>No. of samples</b>	<b>Sample receipt date</b>	
SilverZap 1 x 500 ml	One	12-05-2017	
<p><b>SAMPLE DESCRIPTION:</b> One amber colored bottle.</p>			
<p><b>TEST INFORMATION:</b></p>			
Analysis Started on	22-05-2017	Analysis Completed on	25-05-2017
Sample	A - SilverZap 0.19 ml B - SilverZap 0.39 ml C - SilverZap 0.65 ml	Contact time	45 mins, 60 mins and 90 mins
Vol. of Sample used	0.19 ml, 0.39 ml and 0.65 ml	Vol. of Inoculum used	1000 ml
Diluent Used	PBS	Neutralizer used	Dey Engley Neutralizing Broth
<p><b>METHODS USED:</b> Time Kill Study -Quantitative Test Based On ASTM 2315 Test Method</p>		<p><b>METHOD STANDARD:</b> Based on ASTM 2315.</p>	
<p><b>MEDIA USED:</b> Soyabean Casein Digest Broth DE Broth Soyabean Casein Digest Agar Phosphate Buffered Saline (PBS) Phosphate</p>		<p><b>CULTURE USED:</b> <i>Escherichia coli ATCC 8739</i></p>	
<p><b>INCUBATION CONDITIONS</b></p>		35-37°C, Aerobic for 24-48 hrs for Bacteria.	

... for all your Microbiology Testing needs!

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	<b>Report date : 24-05-2017</b>
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### OBSERVATIONS –I

INITIAL INNOCULUM COUNT	CFU/ml
<i>Escherichia coli ATCC 8739</i>	<b>7.5 x 10<sup>6</sup></b>

### OBSERVATIONS II

Test Microorganism	Sample Concentration	Contact Time	CFU / ml	Log reduction vs. Control at 0 time	Percent Reduction vs. Control at time
<b>Escherichia coli ATCC 8739</b>	Control Substance	Time Zero	1.34 E+05	NA	
	A - SilverZap 0.19 ml	45 mins.	1.0E+05	<1	25.373 %
		60 mins.	3.3E+03	1.61	97.537%
		90 mins.	30	3.65	99.977%
	B - SilverZap 0.39 ml	45 mins.	8.0E+03	1.22	94.029%
		60 mins.	2.4E+03	1.75	98.208%
		90 mins.	20	3.83	99.985%
	C - SilverZap 0.65 ml	45 mins.	6.0E+03	1.35	95.522%
		60 mins.	1.5E+03	1.9	98.880%
		90 mins.	10	4.13	99.992%

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**RESULTS:**

Under the given test conditions:

1. The Test Sample – **0.19 ml of SilverZap exhibits more than 99.9%** reduction in the count of *Escherichia coli* ATCC 8739 at **90 mins** of contact time.
2. The Test Sample – **0.39 ml of SilverZap exhibits more than 99.9%** reduction in the count of *Escherichia coli* ATCC 8739 at **90 mins** of contact time.
3. The Test Sample – **0.65 ml of SilverZap exhibits more than 99.9%** reduction in the count of *Escherichia coli* ATCC 8739 at **90 mins** of contact time.

Report prepared by: **MAA (Head- QA-QC)**

Checked by: **AGA (C.E.O)**

**Disclaimer**

*Shubhda Research Institute does not assume any responsibility as regards the origin of the sample, results obtained or further actions taken by you based on our results.*

**EOD**