

CERTIFICATE OF ANALYSIS

TEVO CREATIONS SDN BHD (1100424-K)
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Attn : Mr Kern Ng, Mr Lim Wooi Theng

Certificate No : NNN22030079M01-0
Sample Received Date : 07-Mar-2022
Analysis Start Date : 08-Mar-2022
Complete Analysis Date : 08-Apr-2022
Date Issue : 08-Apr-2022

Sample Description: BerryC Bed & Fabric Sanitizer - 4/3/22.

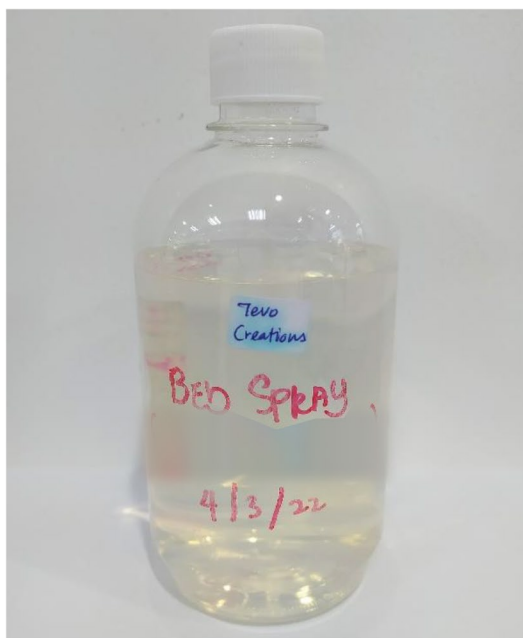


Figure 1 : A bottle of sample labelled as Bed Spray - 4/3/22.

Objective:

Determination of a product's ability to kill or prevent the growth of microorganisms over a relatively long period of time.

Test Procedure:

In house method based on USP 51-Measurement of Microbial Effectiveness Testing.

Test Organism(s):

Escherichia coli (ATCC 8739)

Staphylococcus aureus (ATCC 6538)

Listeria monocytogenes (ATCC 19115)

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Inoculum preparation :

Bacteria *Escherichia coli* (ATCC 8739), *Staphylococcus aureus* (ATCC 6538), and *Listeria monocytogenes* (ATCC 19115) were cultured on suitable agar till it ripe and fruiting (18-24 hours) at 35.0 °C. By scraping the fruity culture, the spore collected had been transfer to 10 mL sterilized Phosphate-buffered saline solution in a universal bottle to obtain a microbial count of 1.1×10^8 CFU/mL for *Escherichia coli*, 9.6×10^7 CFU/mL for *Staphylococcus aureus* and 2.1×10^8 CFU/mL for *Listeria monocytogenes*. Each test organism will be prepared in different universal bottle. The universal bottle was vortexed for 10 seconds to bring the spores into suspension. This suspension was then used as the inoculum for test of sample.

Sample preparation :

The test was conducted in one sterile universal bottle with 10 mL of sample in it. The volume of the suspension inoculums used was 0.1% from the volume of sample used. The initial concentration of viable microorganisms in test preparation was determined by plate count method. After inoculation and 0 hour assayed, the inoculated sample was incubate at $22.5 \pm 2.5^\circ\text{C}$. Sample was examined for its microbial count at 14 and 28 days and the result were compared to the 0 day. Reductions of inoculum (CFU/mL) were converted to log reduction value.

Results :

Table 1 : The log reduction on day 0, 14 and 28 incubation.

Organisms	Initial Spiked Concentration (CFU/mL)	Result (Log Reduction)		
		0 day	14 days	28 days
<i>Escherichia coli</i> (ATCC 8739)	8.8×10^6	6.94	6.94	6.94
<i>Staphylococcus aureus</i> (ATCC 6538)	1.2×10^6	6.08	6.08	6.08
<i>Listeria monocytogenes</i> (ATCC 19115)	1.0×10^6	6.00	6.00	6.00

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Performance required :

Not less than 2.0 log reduction from initial count at 14 days, and no increase from the 14 days count at 28 days.

Finding : Bacteria count show no increases from initial calculated count at 14 days and no increase from the 14 days' count at 28 days.

Conclusion : The tested sample achieved the recommended disinfectant efficacy against *Escherichia Coli* (ATCC 8739), *Staphylococcus aureus* (ATCC 6538) and *Listeria monocytogenes* (ATCC 19115).



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