

Report on
Anti-bacterial Efficacy Test On Wet Wipes
For **TIDY NON-WOVEN**

Test Procedure: EN 1040 (modified) Method
(For Bacteria)

Test Procedure Summary (EN 1040):



- Sample swatches of 6.0 cm² were used for the study to completely absorb 1.0 ml. liquid culture of bacterial cells.
- A single sample swatch is placed into a sterile test tube.
- One (1.0) mL of the inoculum was placed onto the swatch and allowed to absorb.
- The inoculated swatches were incubated for the specified contact time at 20°C .
- At the appropriate contact time, neutralizing broth was added to each tube and the tubes were shaken for 1 minute to release the inoculum from the test swatches and into the neutralizing broth.
- Serial dilutions were made and the plates were incubated.
- After incubation, colonies of recovered were counted and used to determine percent and log reduction.

Test Variables

Test Sample	Sample 0717-A01 dated 04/07/2017
Test Organism:	<u>Bacteria:</u> <i>Escherichia coli, Staphylococcus aureus, Pseudomonas aeruginosa, Klebsiella sp.</i>
Dilution Medium Used:	Sterile Distilled Water
Neutralizing Broth Used:	Modified Nutrient Broth with neutralizing agents
Sample Description	Wet wipes – 6.0 cm ²
Number of Swatches per Sample	1
Untreated Control:	Sample at Time 0
Contact Time:	1, 5, 15 , 30 & 60 minutes

Test Results:

- The results below pertain only to samples tested.
- Percent reductions are determined by comparing the sample after the contact time to the sample immediately after inoculation.
- Percent reduction is translated into log reduction by the following:
 - 90% reduction = 1 log reduction;
i.e. 1,000,000 reduced to 100,000 is a 1 log reduction
 - 99% reduction = 2 log reduction;
i.e. 1,000,000 reduced to 10,000 is a 2 log reduction
 - 99.9% reduction = 3 log reduction;
i.e. 1,000,000 reduced to 1,000 is a 3 log reduction
 - 99.99% reduction = 4 log reduction;
i.e. 1,000,000 reduced to 100 is a 4 log reduction

Efficacy Test Results: EN 1040 Method

Microbes	CFU/mL Vs Time (% Reduction & log Reduction)										
	Sample 0717-A01 dated 04/07/2017										
	0 min.	% Reduction (1 min)	Log Reduction (1 min)	% Reduction (5 min)	Log Reduction (5 min)	% Reduction (15 min)	Log Reduction (15 min)	% Reduction (30 min)	Log Reduction (30 min)	% Reduction (60 min)	Log Reduction (60 min)
<i>E. coli</i>	3.20E+07	91.31	1	99.34	2	99.99	4	99.999	5	99.999	>5
<i>S. aureus</i>	2.48E+07	91.49	1	99.93	3	99.999	5	99.999	5	99.999	>5
<i>P. aeruginosa</i>	1.58E+07	93.92	1	99.43	2	99.99	4	99.999	5	99.999	>5
<i>Klebsiella sp</i>	2.24E+06	90.58	1	99.91	3	99.99	4	99.999	5	99.999	>5

Conclusions:

- ❖ Data show that material under test is able to inhibit growth of microorganism listed above Effectively.
- ❖ More than 99.99% inhibition was observed for sample in between 5-15 min time.