

## EFFICACY AGAINST MICROBIAL PATHOGENS

Organism	Classification	Log Reduction	Lab
<b>Bacillus atrophaeus</b> <sup>1</sup>	Bacterial Spore	>8.3	1
<b>Geobacillus stearothermophilus</b>	Bacterial Spore	>6.3	3/6
<b>Bacillus subtilis</b>	Bacterial Spore	>6.0	1
<b>Clostridium difficile spores</b> <sup>3,4</sup>	Bacterial Spore	>6.0	3/6
<b>Escherichia coli</b>	Gram Negative	>7.4	2
<b>Pseudomonas aeruginosa</b> <sup>3</sup>	Gram Negative	>6.0	5/6
<b>Serratia marcescens</b>	Gram Negative	>6.0	3
<b>Salmonella enterica</b> <sup>3</sup>	Gram Negative	>5.5	7
<b>Staphylococcus aureus</b> <sup>3</sup>	Gram Positive	>7.4	2/6
<b>Methicillin-resistant Staphylococcus aureus (MRSA)</b> <sup>3</sup>	Gram Positive	>5.9	6
<b>Bacillus atrophaeus vegetative cells</b>	Gram Positive	>9.0	1
<b>Aspergillus Niger</b>	Mold	>8.0	4
<b>Aspergillus species</b>	Mold	>7.0	2
<b>Cladosporium species</b>	Mold	>7.0	2
<b>Penicillium Species</b>	Mold	>7.0	2
<b>Stachybotrys chartarum</b>	Mold	>7.0	4
<b>Trichophyton mentagrophytes</b>	Mold	>6.0	4
<b>Human rhinovirus 16</b> <sup>2</sup>	Virus	>6.8	3
<b>Influenza A (H1N1)</b> <sup>3</sup>	Virus	>10	6
<b>Norovirus</b> <sup>3</sup>	Virus	>6.4	7
<b>Adenovirus</b>	Virus	>5.8	7

EPA Accepted GLP Studies / Internationally Accepted GLP Studies

### TESTING LABS

- |   |   |
|---|---|
| 1. University of South Florida<br>Center for Biological Defense | 5. Beckman Coulter                                  |
| 2. Microbial Insights   | 6. Accuratus Labs (formerly ATS)<br>EPA Testing Lab |
| 3. L-3 Communications   | 7. Microchem  |
| 4. Microbiotest   |   |

### NOTES

<sup>1</sup>Bacillus astrophaeus is a surrogate for Bacillus anthracis (Anthrax) | <sup>2</sup>Human Influenza virus (Flu) surrogate | <sup>3</sup>EPA Registered

<sup>4</sup>According to the EPA and CDC, a Clostridium difficile product is also effective against Candida auris