



Foaming Instant Skin Sanitizer

Efficacy Data Summary updated November 2008

In-Vitro Antimicrobial Test Procedures and Protocols:

1. Each test organism was grown overnight on Trypticase-soy agar slants at 35°C. Cell suspensions were prepared by adding 10mL sterile saline (0.9%) to each slant and gently scraping the slant surface. Microbial densities of each cell suspension were estimated using the viable plate count method.
2. Test product (1mL) was aseptically added to sterile test tubes and then inoculated with a 1:10 dilution of a cell suspension (100 µL) of the test organism. At selected time intervals (0.5, 1.0 and 2.0 minutes), aliquots (10 µL) were aseptically removed and transferred to a Trypticase-soy broth recovery medium (10mL). Microbial growth was monitored by the development of turbidity in the recovery medium.

Test Results:

GentleCare Foaming Skin Sanitizer with 0.24% Benzalkonium Chloride exhibited strong germicidal activity against a variety of gram-positive and gram-negative bacteria, as well as the yeast *Candida albicans*. In most instances viable cell numbers were reduced by greater than 99.99% after a 30-second exposure period with this product.

Table 1. follows....

Table 1. In-vitro Antimicrobial Efficacy for GentleCare Foaming Skin Sanitizer with 0.24% Benzalkonium Chloride

Cont...

Organism Type	Test Microorganisms	Initial Inoculum (cfu/10µL)	Exposure Time (Minutes)			Reduction (percent)*
			0.5	1.0	2.0 Growth in TSB	
Gram Neg -	<i>Pseudomonas aeruginosa</i>	3.39 x 10 ⁵	-	-	-	99.99
Gram Neg -	<i>Klebsiella pneumoniae</i>	2.76 x 10 ⁵	-	-	-	99.99
Gram Neg -	<i>Escherichia coli</i>	15.8 x 10 ⁵	-	-	-	99.99
Gram Neg -	<i>Salmonella typhimurium</i>	18.9 x 10 ⁵	-	-	-	99.99
Gram Pos +	<i>Staphylococcus aureus</i> ATCC33591	21.2 x 10 ⁵	(Methicillin Resistant / MRSA)			99.99
Gram Pos +	<i>Staph. epidermidis</i>	18.3 x 10 ⁵	-	-	-	99.99
Gram Pos +	<i>Streptococcus faecalis</i> ATCC522A	9.8 x 10 ⁵	(Vancomycin resistant enterococci / VRE)			99.99
Gram Pos +	<i>Streptococcus agalactiae</i>	12.1 x 10 ⁵	-	-	-	99.99
Gram Pos +	<i>Micrococcus luteus</i>	14.4 x 10 ⁵	-	-	-	99.99
Yeast	<i>Candida albicans</i>	12.6 x 10 ⁵	-	-	-	99.99
Fungi	<i>Trichophyton mentogrophytes</i> (Athlete's Foot)	9.6 x 10 ⁵	-	-	-	99.99
Gram Neg -	<i>Salmonella choleraesuis</i>	14.1 x 10 ⁵	-	-	-	99.99
Fungi	<i>Aspergillus niger</i>	11.8 x 10 ⁵	-	-	-	99.99
Gram Pos +	<i>Listeria monocytogenes</i>	17.9 x 10 ⁶	(30 seconds)			0 survival CFU/mL
Gram Pos +	<i>Clostridium difficile</i>	1.1 x 10 ⁴	(15 seconds)			0 survival CFU/mL

(*) Indicates percentage reduction in numbers of viable cells evidenced by lack of growth in Trypticase-soy Broth medium.

(-) Indicates no survival of test organisms in the recovery medium.

In Vitro Virucidal Tests	Results
Human Coronavirus (resembles SARS-like virus family) (Microbio Test, Inc. – USA)	The product showed virucidal efficacy on all test-viruses.
Influenza virus-A H3N2 (BioScience Labs – USA)	The product showed virucidal efficacy on all test-viruses.

Unless noted, all test performed by Chembac Laboratory – USA