Test Performed: Kill Time

Product Tested: Clea Alcohol Hand Sanitizer Gel, CL11504 (70% Ethyl Alcohol)

Lot #: 30811-6

Tracking #: 031011-011

Test Organism: Escherichia coli ATCC #25922, Pseudomonas aeruginosa ATCC #9027, Methycillin Resistant Staphlococcus Aureus ATCC #33591

Client: Clea
5450 W. 83rd Street
Los Angeles, CA 90045

Test Procedure: All test cultures were inoculated into TSB and incubated 18-24 hours at 35 C. For each organism tested, one ml of 10^{-4} culture was inoculated into 10ml product and aseptically shaken vigorously. At 15 seconds, 30 seconds and 60 second intervals 1ml quantities were plated onto D/E neutralizing agar followed by incubation at 35 C for 48 hours. Validation of the subculture system was achieved by Inoculation of one loop of 10^{-4} culture onto each negative kill Time D/E agar plate. Subsequent growth of culture represented validation.
Each culture tested was enumerated by concurrently Performing the viable plate count procedure, so that the Approximate colony forming units of test organism used in the challenge was determined. For all organisms used, 10^{-4} dilution was used. The results were then calculated by dividing the number of organisms killed by the number of organisms added to product. This value was then multiplied by 100x to give the percent reduction.

Test Results: Challenge Test Organism Results:

	Approx. # of organisms added to product	# of colonies on D/E			% Reduction
		15sec	30sec	60sec	
Escherichia coli	2.17×10^3 cfu's	0	0	0	>99.95%
Pseudomonas aeruginosa	2.9×10^3 cfu's	0	0	0	>99.97%
MRSA	1.43×10^3 cuf's	0	0	0	>99.93%

Signed: *Ron Gain* Date: 10.3.12

Ronald E. Gain, Ph.D.