

BIOSECUR C1605 % Conc.	Pathogen Type	Time Kill Study 6/1/2009 Challenge Organism	Units	Inoculum	Count/ gm	15	30	3	6	9	12	15	20	30
				Count	Sample	seconds	seconds	minutes	minutes	minutes	minutes	minutes	minutes	minutes
2.00%	Yeast	<i>Candida albicans</i> ATCC 10231	CFU/ml	2.6 x 108	1.3 x 106	1.0 x106	9.6 x105	2.6 x104	2.1 x104	2.0 x104	1.6 x104	1.5 x104	4.2 x103	3.2 x102
			% reduction	N/A	N/A	23.077	26.154	98	98.385	98.461	98.769	98.846	99.677	99.975
2.00%	Yeast	<i>Candida glabrata</i> ATCC 26512	CFU/ml	3.6 x 108	1.8 x 106	1.0 x106	1.0 x106	1.4 x105	1.8 x105	7.2 x104	3.6 x104	9.7 x104	3.8 x104	3.4 x104
			% reduction	N/A	N/A	44.444	44.444	92.222	90	96	98	94.61	97.89	98.11
2.00%	Fungus	<i>Aspergillus brasiliensis</i> (formerly <i>A. niger</i>) ATCC	CFU/ml	2.5 x 108	1.2 x 106	1.7 x 105	2.8 x 105	9.3 x 104	9.5 x 104	8.5 x 104	9.4 x 104	7.3 x 104	6.9 x 104	8.7 x 104
			% reduction	N/A	N/A	85.833	76.667	92.25	92.083	92.917	92.167	93.917	94.25	92.75
0.50%	Gram -	<i>Acinetobacter baumannii</i> ATCC 19606	CFU/ml	7.3 x 108	3.6 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Enterobacter aerogenes</i> ATCC 35029	CFU/ml	4.2 x 108	2.1 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Enterobacter sakazakii</i> ATCC 51329	CFU/ml	8.7 x 108	4.4 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Escherichia coli</i> ATCC 25922	CFU/ml	1.2 x 109	6.0 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Escherichia coli</i> O157:H7 ATCC 43895	CFU/ml	4.0 x 108	2.0 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Haemophilus influenza</i> ATCC 19418	CFU/ml	3.2 x 108	1.6 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Klebsiella oxytoca</i> ATCC 43165	CFU/ml	4.0 x 108	2.0 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Klebsiella pneumoniae</i> ATCC 4352	CFU/ml	1.4 x 109	7.0 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Pseudomonas aeruginosa</i> ATCC 15442	CFU/ml	4.8 x 108	2.4 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Pseudomonas aeruginosa</i> ATCC 27853	CFU/ml	3.0 x 108	1.5 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	g- anaerobic	<i>Bacteroides fragilis</i> ATCC 25285	CFU/ml	2.8 x 108	1.4 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Micrococcus luteus</i> ATCC 7468	CFU/ml	2.8 x 108	1.4 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Proteus mirabilis</i> ATCC 7002	CFU/ml	4.0 x 108	2.0 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Staphylococcus haemolyticus</i> ATCC 29970	CFU/ml	4.2 x 108	2.1 x 106	2.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Streptococcus pyogenes</i> ATCC 19615	CFU/ml	4.0 x 108	2.0 x 106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Salmonella choleraesuis</i> ATCC 10708	CFU/ml	4.2 x 108	2.1 x 106	4.5 x102	2.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.997	99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Serratia marcescens</i> ATCC 14756	CFU/ml	2.6x 109	1.3 x 107	2.6 x103	1.6 x102	1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.98	99.999	99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Enterococcus faecalis</i> ATCC 29212	CFU/ml	3.5 x 108	1.8 x 106	4.5 x105	2.9 x105	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	75	83.889	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram -	<i>Enterococcus faecium</i> ATCC 19434	CFU/ml	7.3 x 108	3.6 x 106	1.7 x106	1.5 x106	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	52.778	58.333	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Listeria monocytogenes</i> ATCC 7644	CFU/ml	1.6 x 109	8.0 x 106	5.0 x104	1.6 x104	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.375	99.8	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Staphylococcus hominis</i> ATCC 27844	CFU/ml	2.8 x 108	1.4 x 106	7.8 x103	4.8 x103	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.443	99.657	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Staphylococcus epidermidis</i> ATCC 12228	CFU/ml	1.5 x 109	7.5 x 106	9.2 x103	1.8 x103	4.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.877	99.976	99.995	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Staphylococcus saprophyticus</i> ATCC 15305	CFU/ml	9.6 x 108	4.8 x 106	9.3 x104	3.9 x104	6.8 x103	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	98.062	99.188	99.858	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Streptococcus pneumoniae</i> ATCC 6302	CFU/ml	3.4 x 108	1.7 x 106	1.3 x104	2.6 x103	2.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.235	99.87	99.998	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999	> 99.999
0.50%	Gram +	<i>Staphylococcus aureus</i> ATCC 29213	CFU/ml	4.9 x 109	2.4 x 107	1.8 x105	4.0 x104	9.4 x103	2.6 x102	1.4 x102	2.0 x101	2.0 x101	1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.25	99.833	99.961	99.998	99.999	99.999	99.999	99.999	> 99.999
0.50%	Gram +	<i>Staphylococcus aureus</i> MRSA ATCC 33592	CFU/ml	7.3 x 109	3.6 x 107	2.0 x105	1.2 x105	6.4 x104	3.5 x103	1.8 x102	5.0 x101	< 1.0 x101	< 1.0 x101	< 1.0 x101
			% reduction	N/A	N/A	99.444	99.667	99.822	99.99	99.999	99.999	> 99.999	> 99.999	> 99.999