



**\*\*NOTE:** This is a comprehensive report of GenEon's On-Site Generator Microbiological Kill Claims.

**Table 1** The mycobacteriocidal efficacy of the liquid generated by GenEon's On-Site Generators (BCS1403223)1 at 30 second contact time at 412 ppm of FAC.

Challenge	Average <i>Mycobacterium terrea</i> cfu/mL inoculated per slide#	Average cfu/mL recovered from each of slides sprayed*	Cumulative Percent Reduction	Cumulative Log <sub>10</sub> reduction
Slide 1	1.9 x 10 <sup>6</sup>	<0.45	> 99.9998%	> 5.8
Slide 2		<0.45		
Slide 3		12.7		
Slide 4		<0.45		
Slide 5		<0.45		

**Table 2** The bactericidal efficacy of the liquid generated by GenEon's On-Site Generators; Germicidal Spray Products as Disinfectants (2005) using a 30 second contact time at 350 ppm of FAC.

Microorganism	Number of Sprayed Inoculated Slides (number of replicates tested)	Average microorganism cfu/mL inoculated per slide#	Average cfu/mL recovered from each of slides sprayed*	Percent Reduction	Log <sub>10</sub> reduction
Bacteriophage MS-2	5	2.4 x 10 <sup>5</sup>	< .91	>99.9996%	>5.4
<i>Pseudomonas aeruginosa</i>	5	3.0 x 10 <sup>5</sup>	< .91	>99.9997%	>5.5

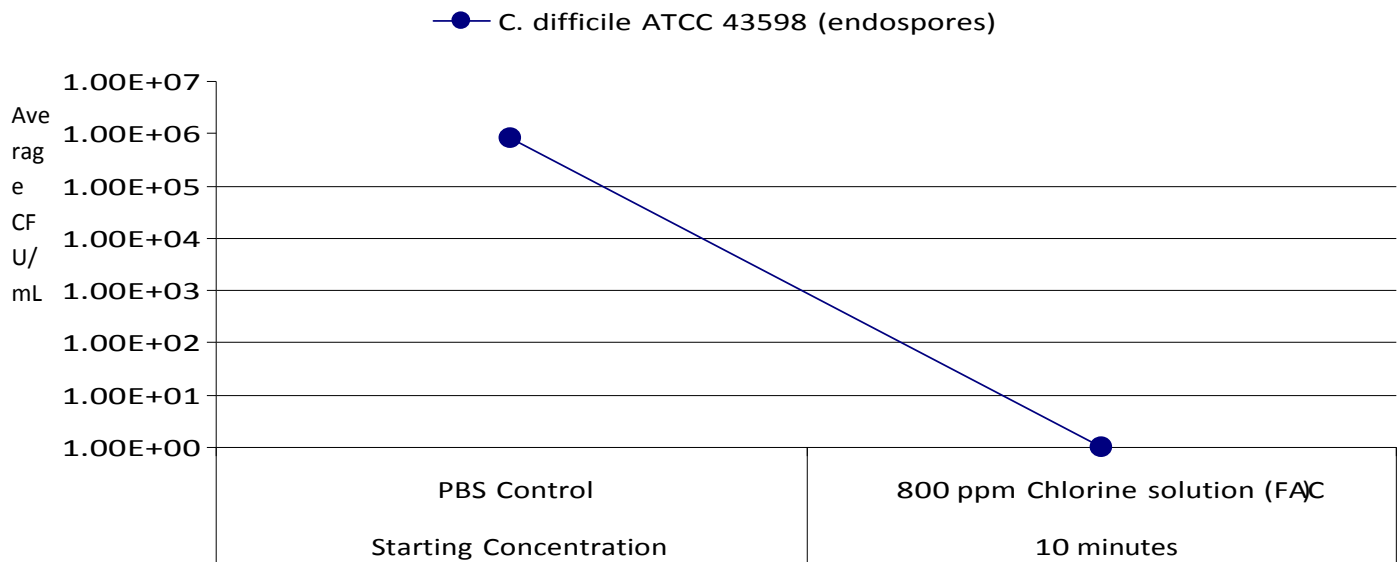
**Table 3** The virucidal efficacy of the liquid generated by GenEon’s On-Site Generators against Murine Norovirus at various contact times using 800 ppm of FAC. Test was conducted as per AOAC Official Method 961.02; Germicidal Spray Products as Disinfectants (2005) and ASTM E1053 “Standard Test Method for Efficacy of Virucidal Agents Intended for Inanimate Environmental Surfaces”

Microorganism	Number of replicates tested	Contact Time (Minutes)	Control Slide Average Infectious Units (iu) /mL #	Average iu/mL Recovered From Each Sprayed Slide*	Average Percent Reduction	Log10 reduction
Murine Norovirus MNV-1 (Human Norovirus Surrogate)	3	1	1.7 x 10 <sup>4</sup>	0.8	99.994%	4.2
				0.8		
				1.4		
Murine Norovirus MNV-1 (Human Norovirus Surrogate)	3	3	1.1 x 10 <sup>4</sup>	<0.2	>99.998%	>4.8
				<0.2		
				<0.2		
Murine Norovirus MNV-1 (Human Norovirus Surrogate)	3	10	1.4 x 10 <sup>4</sup>	<0.2	>99.999%	>5.0
				<0.2		
				<0.2		

**Table 4** ASTM E 2315-03 (2008) NG3611, Assessment of Antimicrobial Activity Using a GenEon On-Site Generator for time Kill Procedure.

Microorganism	Contact Time	Test Substance	Replicate	CFU/mL	Average CFU/mL	Average Percent Reduction from Starting Concentration
C. difficile ATCC 43598 (endospores)	Starting Concentration	PBS Control	1	8.00E+05	8.00E+05	N/A
			2	9.50E+05		
			3	6.50E+05		
	10 minutes	800 ppm Chlorine solution (FAC)	1	<50	<50	>99.994%
			2	<50		
			3	<50		

**Table 5**



**Table 6** The bactericidal efficacy of the liquid generated by GenEon’s On-Site Generators. Test was conducted as per AOAC Official Method 961.02; Germicidal Spray Products as Disinfectants at 250 ppm of FAC (2005)

Microorganism	Number of Sprayed Inoculated Slides	Number of Tubes Demonstrating Growth	Positive Control (un-sprayed slide)	Negative Control (un-inoculated slide)
<i>Staphylococcus aureus (MRSA)</i>	10	None	Growth	No-Growth
<i>Salmonella enterica</i>	10	None	Growth	No-Growth
<i>Listeria monocytogenes</i>	10	None	Growth	No-Growth
<i>Pseudomonas aeruginosa</i>	10	None	Growth	No-Growth
<i>E. coli</i> O157:H7	10	None	Growth	No-Growth

**Table 7** The bactericidal efficacy of the liquid generated by the GenEon On-Site Generator at 250 ppm of FAC.

Microorganism	Number of Sprayed Inoculated Slides (number of replicates tested)	Average microorganism cfu/mL inoculated per slide#	Average cfu/mL recovered from each of slides sprayed*	Percent Reduction	Log10 reduction
<i>Staphylococcus aureus</i> (MRSA)	10	5 >1.0 x 10	<1.0	>99.999%	>5.0
<i>Salmonella enterica</i>	10	>1.0 x 10 <sup>5</sup>	<1.0	>99.999%	>5.0
<i>Listeria monocytogenes</i>	10	>1.0 x 10 <sup>5</sup>	<1.0	>99.999%	>5.0
<i>Pseudomonas aeruginosa</i>	10	5 >1.0 x 10	<1.0	>99.999%	>5.0
<i>E. coli</i> O157:H7	10	>1.0 x 10 <sup>5</sup>	<1.0	>99.999%	>5.0

**Table 8** The virucidal efficacy of the liquid generated by GenEon's On-Site Generators.

Test was conducted as per AOAC Official Method

961.02; Germicidal Spray Products as Disinfectants (2005) and ASTM E1053 "Standard Test Method for Efficacy of Virucidal at 250 ppm of FAC.

Microorganism	Number of Sprayed Inoculated Slides (number of replicates tested)	Average infectious particles (iu) /mL inoculated per slide#	Average iu/mL recovered from each of slides sprayed*	Percent Reduction	Log10 reduction
Murine Norovirus MNV-1 (Human Norovirus Surrogate)	5	4.6 x 10 <sup>4</sup>	<0.5	>99.999%	>5.0
Poliovirus CHAT Lsc1	5	1.3 x 10 <sup>5</sup>	<0.5	>99.9999%	>6.0

**Table 9** Inactivation of *E. coli* O157:H7 and *Listeria monocytogenes* at the indicated time points following introduction to the liquid produced by GenEon’s On-Site Generators at 250 ppm of FAC.

Microorganism	Bacterial cfu/mL at the indicated time points following study start <sup>1</sup>									
	0 (control)	10 seconds	30 seconds	60 seconds	90 seconds	120 seconds	180 seconds	5 minutes	Control (Final)	
<b><i>E. coli</i> O157:H7</b>	2.9 x 10 <sup>6</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction)	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	2.9 x 10 <sup>6</sup>
<b><i>Listeria monocytogenes</i></b>	1.1 x 10 <sup>6</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction)	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	<1.0 (>99.9999% or >6 Log <sub>10</sub> reduction) <sup>10</sup>	8.9 x 10 <sup>5</sup>