

Efficacy Bulletin

Halt[®]

EPA Reg. 10324-93-5741

Disinfection

This product is bactericidal according to the EPA Test Guideline 810.2200: AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum and 200 ppm hard water. All tests are completed under Good Laboratory Practice (GLP) conditions.

Organism	Sample	Carriers showing growth	Contact Time	Dilution
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	A	5/60	10 minutes	2 oz./gal
	B	6/60		
	C	6/60		
<i>Staphylococcus aureus</i> (ATCC 10708)	A	3/60	10 minutes	2 oz./gal
	B	1/60		
	C	3/60		
<i>Salmonella enterica</i> (6538)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
	C	0/10		
<i>Acinetobacter baumannii</i> (ATCC 19606)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Bordetella bronchiseptica</i> (ATCC 10580)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Campylobacter jejuni</i> (ATCC 29428)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Corynebacterium ammoniagenes</i> (ATCC 6871)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Enterobacter aerogenes</i> (ATCC 10348)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Enterococcus faecalis</i> (ATCC 19433)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Enterococcus faecalis</i> Vancomycin Resistant (VRE) (ATCC 51575)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Escherichia coli</i> (ATCC 11229)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Escherichia coli</i> O111:H8 (ATCC BAA-184)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Escherichia coli</i> O157:H7 (ATCC 35150)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Klebsiella pneumoniae</i> (ATCC 13883)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Klebsiella pneumoniae</i> (NDM-1 positive) (CDC 1000527)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Listeria monocytogenes</i> (ATCC 984)	A	0/10	10 minutes	2 oz./gal
	B	0/10		

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<i>Salmonella schottmuelleri</i> (ATCC 8759)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Salmonella typhi</i> (ATCC 6539)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Shigella dysenteriae</i> (ATCC 9361)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Staphylococcus aureus</i> Methicillin Resistant (MRSA) (ATCC 33591)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Staphylococcus aureus</i> Community Associated Methicillin Resistant (CA-MRSA) (NRS-400)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Staphylococcus aureus</i> Vancomycin Intermediate Resistant (VISA) (HIP 5836)	A	0/10	10 minutes	2 oz./gal
	B	0/10		
<i>Streptococcus salivarius</i> (ATCC 13419)	A	0/10	10 minutes	2 oz./gal
	B	0/10		

Virucidal

This product is virucidal according to the EPA Test Guideline 810.2200: Virucidal Hard Surface Efficacy Test, in the presence of 5% organic serum and 200 ppm hard water. All tests are completed under Good Laboratory Practice (GLP) conditions.

Organism	Sample	Log Reduction	Contact Time	Dilution
Avian Influenza A Virus (H5N1)	A	≥3.00	10 minutes	2 oz./gal
	B	≥4.00		
Avian Influenza A/Turkey/Wisconsin Virus (VRE-798)	A	≥5.70	10 minutes	2 oz./gal
	B	≥5.70		
Hepatitis B Virus (HBV)	A	4.93	10 minutes	2 oz./gal
	B	4.79		
Hepatitis C Virus (HCV)	A	5.68	10 minutes	2 oz./gal
	B	5.79		
Herpes Simplex Virus Type 1	A	≥5.00	10 minutes	2 oz./gal
	B	≥5.00		
HIV Type 1 (AIDS Virus) (HTLV-III _B)	A	≥3.50	2 minutes	2 oz./gal
	B	≥3.50		
Human Coronavirus (VR-740)	A	≥3.00	10 minutes	2 oz./gal
	B	≥3.00		
Influenza A Virus (H1N1) (VR-1469)	A	≥6.00	10 minutes	2 oz./gal
	B	≥6.00		
Influenza A2/Japan Virus (VR-100)	A	≥5.70	10 minutes	2 oz./gal
	B	≥5.70		

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Norwalk Virus - Norovirus (VR-782)	A	≥4.97	10 minutes	2 oz./gal
	B	≥4.18		
Vaccinia Virus	A	≥4.30	10 minutes	2 oz./gal
	B	≥4.30		

Fungicidal

This product is fungicidal according to the EPA Test Guideline 810.2200: AOAC Use-Dilution method modified for fungicidal activity on hard inanimate surfaces modified in the presence of 5% organic serum. All tests are completed under Good Laboratory Practice (GLP) conditions.

Organism	Sample	Growth	Contact Time	Dilution
<i>Trichophyton mentagrophytes</i>	A	No growth	10 minutes	2 oz./gal
	B	No growth		
	C	No growth		

Mildewcidal

This product is mildewcidal according to the EPA Hard Surface Mildew Fungistatic Test. All tests are completed under Good Laboratory Practice (GLP) conditions.

Organism	Sample	Untreated (% Covered)	7 days Post Treatment (% Covered)	Dilution
<i>Aspergillus niger</i> (ATCC 6275)	1	80	0/0	2 oz./gal
	2	100	0/0	
	3	80	0/0	
	4	80	0/0	
	5	80	0/0	
	6	80	0/0	
	7	80	0/0	
	8	100	0/0	
	9	100	0/0	
	10	80	0/0	

Animal Virucidal

This product is virucidal according to the EPA Test Guideline 810.2200: Virucidal Hard Surface Efficacy Test, in the presence of 5% organic serum and 200 ppm hard water. All tests are completed under Good Laboratory Practice (GLP) conditions.

Organism	Sample	Log Reduction	Contact Time	Dilution
Feline Calicivirus (VR-782)	A	≥5.00	10 minutes	2.5 oz/gal
	B	≥5.00		
Feline Picornavirus (VRE-649)	A	≥3.00	10 minutes	2.5 oz/gal
	B	≥3.00		
Canine Parvo virus (CPV) (VR-2017)	A	≥3.75	10 minutes	8 oz./gal
	B	≥3.75		
Minute Virus of Mice (Parvovirus) (VR-1346)	A	≥3.25	10 minutes	8 oz./gal
	B	≥3.25		
Porcine Parvovirus (VR-742)	A	≥3.00	10 minutes	8 oz./gal
	B	≥3.00		