

Efficacy Bulletin

Clean by 4D[®]

EPA Reg. 5741-30

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 Tested	Carriers Showing Growth	Contact Time	Dilution
<i>Pseudomonas aeruginosa</i>	A	60	1	10 minutes	2oz/gal
	B	60	0		
	C	60	0		
<i>Staphylococcus aureus</i>	A	60	1	10 minutes	2oz/gal
	B	60	0		
	C	60	0		
<i>Salmonella enterica</i>	A	60	1	10 minutes	2oz/gal
	B	60	0		
	C	60	0		
<i>Acinetobacter baumannii</i>	A	10	0	10 minutes	2oz/gal
	B	10	0		
<i>Escherichia coli</i>	A	10	0	10 minutes	2oz/gal
	B	10	0		
<i>Klebsiella pneumonia</i> (NDM-1)	A	10	0	10 minutes	2oz/gal
	B	10	0		
Methicillin Resistant <i>Staphylococcus aureus</i> -MRSA	A	10	0	10 minutes	2oz/gal
	B	10	0		
Vancomycin Resistant <i>Enterococcus faecalis</i> (VRE)	A	10	0	10 minutes	2oz/gal
	B	10	0		

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 (H1N1)	A	$\geq 5.50 \text{ Log}_{10}$	10 minutes	2oz/gal
	B	$\geq 5.50 \text{ Log}_{10}$		
Hepatitis B Virus	A	$\geq 5.38 \text{ Log}_{10}$	10 minutes	2oz/gal
	B	$\geq 5.38 \text{ Log}_{10}$		
Hepatitis C Virus	A	$\geq 4.47 \text{ Log}_{10}$	10 minutes	2oz/gal
	B	$\geq 4.47 \text{ Log}_{10}$		
Human Immunodeficiency Virus Type 1 (HIV-1)	A	$\geq 3.50 \text{ Log}_{10}$	10 minutes	2oz/gal
	B	$\geq 3.50 \text{ Log}_{10}$		

Non-Food Contact Sanitization

This product sanitizes hard non-porous non-food contact surface according to the EPA Test Guideline 810.2300, Sanitizers for use on hard inanimate surfaces in the presence of 5% organic serum and 200 ppm hard water. All tests are completed under Good Laboratory Practice (GLP) conditions.

Organism	Sample	Percent Kill	Dilution	Contact time
<i>Saphylococcus aureus</i>	A	>99.999%	2oz/gal	90 seconds
	B	>99.99%		
	C	>99.99%		
<i>Klebsiella pneumoniae</i>	A	>99.999%	2oz/gal	90 seconds
	B	>99.999%		
	C	>99.999%		

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	No. of Carriers Exposed	Positive	Dilution
<i>Aspergillus niger</i>	A	10	0	2 oz./gal
	B	10	0	
	Control	10	10	