

## Efficacy Bulletin

# Profect® 64 hdqC2®

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EPA Reg. 5741-35

## Bactericidal Activity

Using approved AOAC test methods under Good Laboratory Practices, in the presence of 5% blood serum, when diluted at 2.0 fl. oz./gal, and a 10-minute contact time, unless otherwise noted, this product kills the following organisms on hard nonporous inanimate surfaces:

Organism	Sample	Carriers Showing Growth	Contact Time	Dilution
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	A	1/60	10 minutes	2.0 fl.oz./gal
	B	2/60		
	C	0/60		
<i>Staphylococcus aureus</i> (ATCC 6538)	A	1/60	10 minutes	2.0 fl.oz./gal
	B	0/60		
	C	0/60		
<i>Bordetella bronchiseptica</i> (ATCC 10580)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Enterobacter aerogenes</i> (ATCC 13048)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Escherichia coli</i> O157:H7 (ATCC 35150)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
Extended-Spectrum beta-lactamase (ESBL) <i>Escherichia coli</i> (ATCC BAA-196)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
Extended-Spectrum beta-lactamase (ESBL) producing <i>Klebsiella pneumoniae</i> (ATCC 700603)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Klebsiella pneumoniae</i> (NDM-1) (CDC 1000527)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Listeria monocytogenes</i> (ATCC 19117)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA) (ATCC 33592)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
Multi-drug Resistant (MDR) <i>Acinetobacter baumannii</i> (ATCC 19606)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Neisseria gonorrhoeae</i> (ATCC 43069)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Proteus mirabilis</i> (ATCC 9240)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Proteus vulgaris</i> (ATCC 9920)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Salmonella enterica</i> (ATCC 10708)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		

## Bactericidal Activity

Organism	Sample	Carriers Showing Growth	Contact Time	Dilution
<i>Salmonella enterica</i> subspecies enterica serovar Pullorum (ATCC 19945)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Salmonella enterica</i> subspecies enterica serovar Typhimurium (ATCC 23564)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Serratia marcescens</i> (ATCC 14756)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Shigella flexneri</i> serotype 2B (ATCC 12022)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Shigella sonnei</i> (ATCC 25931)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Streptococcus pneumoniae</i> (ATCC 6305)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Streptococcus pyogenes</i> (ATCC 19615)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
Vancomycin Resistant <i>Enterococcus faecalis</i> (VRE) (ATCC 51575)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Vibrio cholerae</i> (ATCC 14035)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		
<i>Yersinia enterocolitica</i> (ATCC 23715)	A	0/10	10 minutes	2.0 fl.oz./gal
	B	0/10		

## Virucidal Activity

Using approved AOAC test methods under Good Laboratory Practices, in the presence of 5% blood serum, when diluted at 2.0 fl. oz./gal, and a 10-minute contact time, unless otherwise noted, this product kills the following organisms on hard nonporous inanimate surfaces:

Organism	Sample	Log Reduction	Contact Time	Dilution
Hepatitis C Virus (HCV) (Bovine Viral Diarrhea virus as a surrogate)	A	$\geq 4.39 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 4.39 \log_{10}$		
Hepatitis B Virus (HBV) (Duck Hepatitis B virus as a surrogate )	A	$\geq 4.89 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 4.89 \log_{10}$		
HIV-1 (AIDS Virus) (Strain HTLV-III B)	A	$\geq 4.25 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 4.25 \log_{10}$		
Herpes Simplex Virus Type 1 (ATCC VR-733, Strain F (1))	A	$\geq 4.25 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 4.25 \log_{10}$		

## Virucidal Activity

Organism	Sample	Log Reduction	Contact Time	Dilution
Herpes Simplex Virus Type 2 (ATCC VR-734, Strain G)	A	$\geq 4.00 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 4.00 \log_{10}$		
Human Coronavirus (ATCC VR-740, Strain 299E)	A	$\geq 5.25 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 5.25 \log_{10}$		
Human Rotavirus (ATCC VR-2018, Strain WA)	A	$\geq 6.25 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 6.25 \log_{10}$		
Influenza A Virus (ATCC VR-544, Strain A)	A	$\geq 3.50 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 3.00 \log_{10}$		
Influenza B Virus (ATCC VR-823, Strain B)	A	$\geq 4.50 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 4.50 \log_{10}$		
Severe Acute Respiratory Syndrome-related Coronavirus 2 (SARS-CoV-2) (USA-WA1/2020 strain)	A	$\geq 3.13 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 3.13 \log_{10}$		
	C	$\geq 3.13 \log_{10}$		
Vaccinia virus (ATCC VR-119, Strain WR)	A	$\geq 5.25 \log_{10}$	10 minutes	2.0 fl.oz./gal
	B	$\geq 5.25 \log_{10}$		

## Mildewcidal Activity (Mildew)

Using approved AOAC test methods under Good Laboratory Practices, in the presence of 5% blood serum, when diluted at 2.0 fl. oz./gal, and a 10-minute contact time, unless otherwise noted, this product kills the following organisms on hard nonporous inanimate surfaces:

Organism	Sample	Carriers Showing Growth	Contact Time	Dilution
Aspergillus niger (ATCC 6275)	A	0/10	After initial application, reapply once per week or when growth reappears.	2.0 fl.oz./gal
	B	0/10		

### Non-Food Contact Surface Sanitizers

Using approved AOAC test methods under Good Laboratory Practices, when diluted at 2.0 fl. oz./gal with a 2-minute contact time, unless otherwise noted, this product kills the following organisms on hard nonporous inanimate surfaces:

Organisms	Sample	Percent Reduction	Contact Time	Dilution
<i>Enterobacter aerogenes</i> (ATCC 13048)	A	>99.9%	2 minutes	2.0 fl.oz./gal
	B	99.9%		
	C	99.9%		
<i>Staphylococcus aureus</i> (ATCC 6538)	A	>99.99%	2 minutes	2.0 fl.oz./gal
	B	>99.99%		
	C	>99.99%		

### Soft Non-Food Contact Surfaces

Soft surfaces need to be precleaned prior to application of this product. Using approved AOAC test methods under Good Laboratory Practices, when diluted at 2.0 fl. oz./gal with a 10-minute contact time, unless otherwise noted, this product kills the following organisms on hard nonporous inanimate surfaces:

Organisms:	Sample	Percent Reduction	Contact Time:	Dilution:
<i>Enterobacter aerogenes</i> (ATCC 13048)	A	>99.99% (plain cotton weave fabric) & >99.999% (polyester fabric)	10 minutes	2.0 fl. oz./gal
	B			
<i>Staphylococcus aureus</i> (ATCC 6538)	A	>99.99% (plain cotton weave fabric) & >99.9% (polyester fabric)	10 minutes	2.0 fl. oz./gal
	B			

