

Efficacy Bulletin

Profect 128 HDQ™ Neutral

EPA Reg. 5741-34

Bactericidal Activity

Using approved AOAC test methods under Good Laboratory Practices, in the presence of 5% blood serum, when diluted at 1 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 | 1.0 fl. oz./gal |
| | B | 2/60 | | |
| | C | 0/60 | | |
| <i>Staphylococcus aureus</i> (ATCC 6538) | A | 1/60 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/60 | | |
| | C | 0/60 | | |
| <i>Bordetella bronchiseptica</i> (ATCC 10580) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Enterobacter aerogenes</i> (ATCC 13048) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Escherichia coli</i> O157:H7 (ATCC 35150) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| Extended-Spectrum beta-lactamase (ESBL) <i>Escherichia coli</i> (ATCC BAA-196) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| Extended-Spectrum beta-lactamase (ESBL) producing <i>Klebsiella pneumoniae</i> (ATCC 700603) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Klebsiella pneumoniae</i> (NDM-1) (CDC 1000527) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Listeria monocytogenes</i> (ATCC 19117) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA) (ATCC 33592) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| Multi-drug Resistant (MDR) <i>Acinetobacter baumannii</i> (ATCC 19606) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Neisseria gonorrhoeae</i> (ATCC 43069) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Proteus mirabilis</i> (ATCC 9240) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Proteus vulgaris</i> (ATCC 9920) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Salmonella enterica</i> (ATCC 10708) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Salmonella enterica</i> subspecies enterica serovar Pullorum (ATCC 19945) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |

Bactericidal Activity

| Organism | Sample | Carriers Showing Growth | Contact Time | Dilution |
|---|--------|-------------------------|--------------|-----------------|
| <i>Salmonella enterica</i> subspecies enterica serovar Typhimurium (ATCC 23564) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Serratia marcescens</i> (ATCC 14756) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Shigella flexneri</i> serotype 2B (ATCC 12022) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Shigella sonnei</i> (ATCC 25931) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Streptococcus pneumoniae</i> (ATCC 6305) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Streptococcus pyogenes</i> (ATCC 19615) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| Vancomycin Resistant <i>Enterococcus faecalis</i> (VRE) (ATCC 51575) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Vibrio cholerae</i> (ATCC 14035) | A | 0/10 | 10 minutes | 1.0 fl. oz./gal |
| | B | 0/10 | | |
| <i>Yersinia enterocolitica</i> (ATCC 23715) | A | 0/10 | 10 minutes | 1.0 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 1 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 | 1.0 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 | 1.0 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 | 1.0 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 | 1.0 fl. oz./gal |
| | B | $\geq 4.25 \log_{10}$ | | |
| Herpes Simplex Virus Type 2 (ATCC VR-734, Strain G) | A | $\geq 4.00 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 4.00 \log$ | | |

Virucidal Activity

| Organism | Sample | Log Reduction | Contact Time | Dilution |
|---|--------|-----------------------|--------------|-----------------|
| Human Coronavirus (ATCC VR-740, Strain 299E) | A | $\geq 5.25 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 5.25 \log_{10}$ | | |
| Human Rotavirus (ATCC VR-2018, Strain WA) | A | $\geq 6.25 \log_{10}$ | 10 minutes | 1.0 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 | 1.0 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 | 1.0 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 | 1.0 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 | 1.0 fl. oz./gal |
| | B | $\geq 5.25 \log_{10}$ | | |
| Animal Premise Virucidal Activity | Sample | Log Reduction | Contact Time | Dilution |
| Avian Influenza A (H3N2) Reassortant virus (ATCC VR-2072, Strain A/Washington/897/80 x A/Mallard/NewYork/6750/78) | A | $\geq 4.75 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 4.75 \log_{10}$ | | |
| Canine Distemper virus (ATCC VR-128, Strain Lederle) | A | $\geq 6.25 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 6.25 \log_{10}$ | | |
| Feline Picornavirus (ATCC VR-649, Strain FRV (17FRV)) | A | $\geq 4.25 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $4.00 \log_{10}$ | | |
| Infectious Bovine Rhinotracheitis (ATCC VR-188, Strain LA) | A | $\geq 5.00 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 5.00 \log_{10}$ | | |
| Porcine Respiratory and Reproductive Syndrome (PRRS) virus (Strain NVSL) | A | $\geq 4.75 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 4.75 \log_{10}$ | | |
| Pseudorabies virus (ATCC VR-135, Strain Aujeszky) | A | $\geq 6.25 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 6.25 \log_{10}$ | | |
| Transmissible Gastroenteritis virus (TGE) (obtained from the University of Minnesota) | A | $\geq 4.25 \log_{10}$ | 10 minutes | 1.0 fl. oz./gal |
| | B | $\geq 4.25 \log_{10}$ | | |

Mildewcidal Activity (Mildew)

Using approved AOAC test methods under Good Laboratory Practices, in the presence of 5% blood serum, when diluted at 1 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. | 1.0 fl. oz./gal |
| | B | 0/10 | | |

Non-Food Contact Surface Sanitizers

Using approved AOAC test methods under Good Laboratory Practices, when diluted at 1 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 | 1.0 fl. oz./gal |
| | B | 99.9% | | |
| | C | 99.9% | | |
| <i>Staphylococcus aureus</i> (ATCC 6538) | A | >99.99% | 2 minutes | 1.0 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 1 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 | 1.0 fl. oz./gal |
| | B | | | |
| <i>Staphylococcus aureus</i> (ATCC 6538) | A | >99.99% (plain cotton weave fabric) & >99.9% (polyester fabric) | 10 minutes | 1.0 fl. oz./gal |
| | B | | | |