



One-Step Disinfectant-Deodorizer-Cleaner

for use against SARS-CoV-2

The US Environmental Protection Agency (EPA) has approved Buckeye Eco One-Step Disinfectant/Deodorizer/Cleaner E22 for use against SARS-Related Coronavirus 2 (SARS-CoV-2) [cause of COVID-19] with a one-minute contact time at a 1/2 oz./gal. dilution rate.

Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner is a heavy-duty quaternary-based disinfectant, cleaner, and deodorizer.

Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner is a broad-spectrum disinfectant that may be used as a cleaner at two Use Level ratios:

- 1/2 oz. per gallon for general cleaning
- 2 oz. per gallon for heavy-duty applications

Use Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner on most hard, nonporous surfaces in:

- Nursing Homes
- Hospitals
- Healthcare Facilities
- Schools and Colleges
- Office Buildings
- Public Facilities
- Hotels
- Exercise Facilities

FEATURES

- Disinfectant
- Bactericidal
- Virucidal*
- Fungicidal
- Mildewstatic
- EPA Registered
- Disinfects, cleans, and deodorizes in one labor-saving step
- Hospital use disinfectant. Bactericidal according to the current AOAC Use-Use Level Test Method and Virucidal* according to the virucidal qualification modified in the presence of 200 ppm hard water plus 5% organic serum
- Use on hard, nonporous surfaces

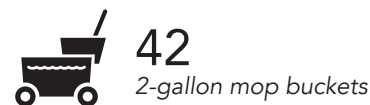
Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner has a broad spectrum of kill claims including:

*Staphylococcus aureus, Methicillin Resistant (MRSA) and Staphylococcus aureus - Community Associated Methicillin-Resistant (CA-MRSA) (NRS384) (USA 300), Pseudomonas, Salmonella, Streptococcus pyogenes, *Adenovirus 5&7 [at 2 oz. per gallon], *HIV-1 (associated with the AIDS Virus), *HBV (Hepatitis B Virus), *HCV (Hepatitis C Virus), *Influenza Virus Type A, *Norwalk Virus, *Rotavirus, *SARS Associated Coronavirus (cause of Severe Acute Respiratory Syndrome), and *Vaccinia Virus.*

Kills *SARS-Related Coronavirus 2 (SARS-CoV-2)

1.25 L Bag Yield Rate

1/2 oz./gal. (1:256) makes 84 end-use gallons, which is equivalent to:



Each 4x1 case makes 339 end-use gallons

2 oz./gal. (1:64) makes 21.5 end-use gallons, which is equivalent to:



Each 4x1 case makes 343 end-use quarts

RESEARCH FACTS

Antimicrobial Test Results

Claim:	Contact Time:	Organic Soil:	Water Conditions:
Disinfectant	10 minutes	5%	200 ppm HW
Test Method:	Approved EPA Method		

Organism	ATCC#	Use Level
Acinetobacter baumannii	19606	847 ppm (½ oz/gal)
Burkholderia cepacia (formerly Pseudomonas)	17765	847 ppm
Burkholderia cepacia (formerly Pseudomonas)	25416	847 ppm
Burkholderia cepacia (formerly Pseudomonas)	25608	847 ppm
Campylobacter jejuni	29428	847 ppm
Corynebacterium ammoniagenes	6871	847 ppm
Enterobacter aerogenes	13408	847 ppm
Enterobacter cloacae NDM-1 positive	CDC 1000654	847 ppm
Enterococcus faecalis	29212	847 ppm
Enterococcus faecalis - Vancomycin res.	51299	847 ppm
Escherichia coli	11229	847 ppm
Escherichia coli New Delhi Betalloy-beta lactamase (NDM-1)	BAA-2469	847 ppm
Escherichia coli ESBL	CU-209	847 ppm
Klebsiella pneumoniae	4352	847 ppm
Klebsiella pneumoniae New Delhi Betalloy-beta lactamase (NDM-1) positive	CDC 1000527	847 ppm
Legionella pneumophila	33153	847 ppm
Listeria monocytogenes	19117	847 ppm
Pseudomonas aeruginosa	15442	847 ppm
Salmonella enterica	10708	847 ppm
Salmonella schottmuelleri	10719	847 ppm
Salmonella typhi	6539	847 ppm
Serratia marcescens	14756	847 ppm
Shigella dysenteriae	11835	847 ppm
Staphylococcus aureus	6538	847 ppm
Staphylococcus aureus - Methicillin-Resistant (MRSA)	33592	847 ppm
Staphylococcus aureus - Multi-Drug Resistant	14154	847 ppm
Staphylococcus aureus-Vancomycin Intermediate Resistant - (VISA)	CDC HIP-5836	847 ppm
Staphylococcus aureus - Community Associated Methicillin-Resistant (CA-MRSA)(NRS384) (USA300)	NRS 384 USA 300	847 ppm
Staphylococcus aureus - Community Associated Methicillin-Resistant (CA-MRSA)(NRS123) (USA400)	NRS 123 USA 400	847 ppm
Streptococcus pyogenes	12344	847 ppm
Vibrio cholerae	14035	847 ppm

Conclusion: All lots of **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** effectively killed the above listed bacteria as specified in the test performance standards. **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** meets EPA requirements for hard surface disinfectant claims in hospital and medical environments when used according to the label under disinfection instructions.

Fungicidal Test Results

Claim:	Contact Time:	Organic Soil:	Water Conditions:
Fungicide	10 minutes	5%	200 ppm HW
Test Method:	Approved EPA Fungicidal Test		

Organism	ATCC#	Use Level
Aspergillus niger	6275	847 ppm (½ oz/gal)
Aspergillus fumigatus	36607	847 ppm
Trichophyton mentagrophytes	9533	847 ppm

Conclusion: All lots of **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** are effective against the above organisms under the test conditions outlined in EPA test performance standards described above. **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** is an effective fungicide and mildewstat for non-porous inanimate surfaces when used as directed on the label.

Virucidal Test Results

Claim:	Organic Soil:	Water Conditions:
Virucide	5%	200 ppm as HW
Test Method:	EPA Guidelines	

Organism	Source of Virus or ATCC#	Contact Time	Use Level
*Hepatitis B Virus	Hepadna Virus (DHBV)	10 Min.	847 ppm (½ oz/gal)
*Hepatitis C (HCV)	Bovine Viral Diarrhea Virus	10 Min.	847 ppm
*Herpes Simplex Type 1	HSV-1 Sabin	10 Min	847 ppm
*Herpes Simplex Type 2	HSV-II (CL-5)	10 Min	847 ppm
*HIV-1 (AIDS Virus)	HTLV-III _B ; Electronucleonics, Inc.	1 Min.	847 ppm
*Human Coronavirus	ATCC VR-740	1 Min.	847 ppm
*Influenza A	A/Brazil 11/78 (H1N1) E-7 ; CDC	10 Min.	847 ppm
*Influenza Virus Type A	VR-544	1 Min.	847 ppm
*Norwalk (Feline Caliciviruses the surrogate for Norwalk virus)	Feline Caliciviruse (FSV) University of Ottawa	10 Min.	847 ppm
*Respiratory Syncytial Virus	VR-26	10 Min.	847 ppm
*Rotavirus	Strain WA	10 Min.	847 ppm
*SARS associated Coronavirus	SARS associated coronavirus strain 200300592	10 Min.	847 ppm
*SARS-Related Coronavirus 2 (SARS-CoV-2)		1 Min.	
*Vaccinia Virus	Wyeth strain	10 Min.	847 ppm
*Adenovirus Type 5	VR-5	10 Min.	3390 ppm (2 oz/gal)
*Adenovirus Type 7	VR-7	10 Min.	3390 ppm

Conclusion: All lots of **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** effectively inactivated the above listed enveloped and non-enveloped viruses as specified in the test performance standards. **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** meets the EPA requirements for hard surface virucidal claims in hospital and medical environments when used as indicated on the label.

Virucidal Test Results

Claim:	Contact Time:	Organic Soil:	Water Conditions:
Virucide	10 minutes	5%	200 ppm HW
Test Method:	Approved EPA Test Methods		

Organism	Source of Virus or ATCC#	Use Level
Avian Infectious Bronchitis Virus	Strain: Arkansas, Charles River Laboratories	847 ppm (½ oz/gal)
Avian Influenza (H ₃ N ₂)	Avian Influenza (H3N2) Virus ATCC VR 2072 Strain A/Washington/897/80X A/Mallard/New York/6750/78	847 ppm
Avian Influenza (H5N1)	Strain H5N1-PR8/CDC-RG CDC#2006719965	847 ppm
Canine Distemper Virus	Canine Distemper Strain Snyder Hill, Atcc VR-1587	847 ppm
Feline Calicivirus	Feline Calicivirus (FSV) Univ of Ottawa	847 ppm
Feline Panleukopenia Virus	VR-648 Strain Philips-Roxane	13562.5 ppm (8 oz/gal)
Murine Norovirus (tested in DI water)	Strain MNV-1, CW1	847 ppm
Newcastle Disease Virus	NDV Atcc VR-108 Strain B-1 Hitchner and Blacksburg	847 ppm
Pseudorabies Virus	PRV Strain Aujeszczy PT-1 Origin	847 ppm

Conclusion: All lots of **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** are effective against the above animal viruses as specified in the EPA test performance standards. **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** is an effective virucide for nonporous inanimate hard surfaces when used as directed on the label.

Sanitizer Test Results

Claim:	Contact Time:	Organic Soil:	Water Conditions:
Soft Surface Sanitizer	5 minutes	5%	250 ppm
Test Method:	EPA Approved Method		

Organism	ATCC#	Use Level
Enterobacter aerogenes	13048	847 ppm (½ oz/gal)
Staphylococcus aureus	6538	847 ppm

Conclusion: All lots of **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** demonstrated efficacy against the organisms as a soft surface spot sanitizer as specified by the EPA test performance standard.

Directions for Use

Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner can be used in a variety of application methods including spray & wipe, mop & bucket, or by immersion.

To clean and deodorize:

Mix ½ oz. of **Buckeye Eco One-Step Disinfectant-Deodorizer-Cleaner** per gallon of water to clean and deodorize hard, non-porous, non-food surfaces. Apply using a cloth, mop, sponge or sprayer. Wipe or allow to air dry.

Preparation of Use-solution:

Mix ½ oz. per gallon of water. For heavy-duty use, mix 2 oz. per gallon of water.

Disinfection/Virucidal*/Fungicidal Directions:

Apply use-solution to hard, non-porous surfaces, thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. Treated surfaces must remain visibly wet for 10 minutes. **For Influenza Virus Type A and Human Coronavirus and SARS-Cov-2**, treated surfaces must remain visibly wet for 1 minute. Wipe dry with a cloth, sponge or mop or allow to air dry. For visibly soiled areas, a preliminary cleaning is required. Rinse all surfaces that come in contact with food such as countertops, exteriors of appliances, tables, and stovetops with potable water before reuse. Do not use on utensils, glassware and dishes.



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Directions for Use (continued)

Connecting 1.25 L Bags to Eco Unit

1. Remove 1.25 L bag from carton.
2. To open the Eco unit product compartment, depress the top of the unit with your fingers and pull the compartment down towards you with your other hand.
3. Align Eco unit connector cap lugs with 1.25 L bag metering plug channels. Rotate clockwise to lock in place.
4. Fit 1.25 L bag neatly into product compartment with hose barb pointed downward.
**Ensure chemical line is not pinched.*
5. Close Eco unit product compartment.

Dispensing Diluted Product into 32 oz. Trigger Spray Bottle

1. Use appropriate 32 oz. trigger spray bottle, and slide up over 5-inch discharge hose.
2. Push back lever to dispense cold water diluted product.
3. Once trigger spray bottle is filled (approximately 2 inches from top), release lever to avoid overfilling.

Dispensing Diluted Product into Mop and Bucket/Other Equipment

1. Position Eco unit discharge hose into mop bucket or other equipment.
2. Press green button below appropriate product to dispense cold water diluted product.
3. For hands-free operation, push the appropriate green button once to dispense cold water diluted product. Once filled, push the button again to stop product flow.

Available in:



1.25 L
bags

Eco One-Step Disinfectant Technical Specifications	
pH (conc.)	12.7 ± 0.7
pH 2 oz./gal.	10.7 ± 0.2
pH ½ oz./gal.	10.2 ± 0.2
Specific Gravity	1.006 ± 0.10 gr/ml
Weight/Gallon	8.38 lbs
Color	Dark Orange
Fragrance	Peppermint

For more information
about E22, scan this code.



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