Bortek Industries, Inc.

SUMMARY OF ANTIMICROBIAL ACTIVITY

9 OXYPRO

Disinfectant Cleaner

Description

OxyPro is a one step disinfectant that is effective against a broad spectrum of bacteria, is *virucidal (including HIV-1, HBV, and HCV) and inhibits the growth of mold and mildew and their odors when used as directed. **OxyPro** is a quaternary ammonium chloride based disinfectant cleaner containing hydrogen peroxide stabilized with phosphoric acid and an amine oxide surfactant to aid cleaning. Kills Pandemic 2009 H1N1 influenza A Virus (formerly called swine flu).

Regulatory Summary

EPA Registration No.	1839-224-
Sub-registrant No.	62541
USDA Authorization	None
California Status	No
Canadian PCP#	None
Canadian Din #	None

Physical Properties

pH of Concentrate	1.0 – 3.0
Specific Gravity @ 25°C	1.00 – 1.04
Pounds per gallon @ 25°C	8.52

Flash Point (PMCC)	>185°F
% Quat (mol. wt. 343)	5.76-6.05
% Volatile	90.0-93.0

DISINFECTION DATA:

Test Method: AOAC Use Dilution

Test Conditions: 2 oz/gal dilution in 200 ppm (as $CaCO_3$) hard water, 5% organic soil load, 10 minute contact time, 20±1°C exposure temperature, stainless steel carrier substrates

Results:

Organism	Sample	Carriers Exposed	Carriers Positive
Staphylococcus aureus (ATCC 6538)	A	60	0
	B	60	0
	C	60	0
Salmonella (choleraesuis) enterica (ATCC 10708)	A	60	0
	B	60	0
	C	60	0
Pseudomonas aeruginosa (ATCC 15442)	A	60	0
	B	60	0
	C	60	1
Community Associated Methicillin resistant *Staphylococcus aureus* (CA-MRSA) Genotype USA 300	A	10	0
	B	10	0
Community Associated Methicillin resistant *Staphylococcus aureus* (CA-MRSA) Genotype USA 400	A	10	0
	B	10	0
Escherichia coli (ATCC 11229)	A	10	0
	B	10	0
Escherichia coli O157:H7 (ATCC 43895)	A	10	0
	B	10	0
Methicillin resistant *Staphylococcus aureus* (MRSA) (ATCC 33593)	A	10	0
	B	10	0

Conclusion: Under the conditions of these investigations, **OxyPro** demonstrated **disinfectant** activity against *Staphylococcus aureus*, *Salmonella (choleraesuis) enterica*, *Pseudomonas aeruginosa*, Community Associated Methicillin resistant *Staphylococcus aureus* (CA-MRSA) Genotype USA 300, Community Associated Methicillin resistant *Staphylococcus aureus* (CA-MRSA) Genotype USA 400, *Escherichia coli* (ATCC 11229), *Escherichia coli* O157:H7 and Methicillin resistant *Staphylococcus aureus* (MRSA) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.

VIRUCIDAL DATA:

Test Methods:
* U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, Section 91-2(f), and Section 91-30 (d), (e), November, 1982.
† Protocols for Testing the Efficacy of Disinfectants against Hepatitis B Virus (HBV) (EPA, Federal Register, Vol. 65, No. 166, 8/25/2000, p. 51828).
‡ Protocol for Testing Disinfectants against Hepatitis C Virus using Bovine Viral Diarrhea Virus as approved by the U.S. EPA on August 15, 2002.

Test Conditions: 2 oz/gal[1] dilution in 200 ppm (as $CaCO_3$) hard water, 5% organic soil load, room temperature, glass slide substrates

Results:

Test Organism	Sample	Titer Reduction	Contact Time
*Human Immunodeficiency Virus, HTLV-III_{RF}, strain of HIV-1 (associated with AIDS)	A	≥3.5 log_{10}	1 minute
	B	≥3.5 log_{10}	
*Influenza A Virus (ATCC VR-544)	A	>5.75 log_{10}	10 minutes
	B	>5.75 log_{10}	
‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV)	A	>5.09 log_{10}	10 minutes
	B	>5.09 log_{10}	
†Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV)	A	>5.22 log_{10}	10 minutes
	B	>5.22 log_{10}	
Pandemic 2009 H1N1 Influenza A Virus	(Refer to NOTE below.)		

Conclusion: Under the conditions of this investigation, **OxyPro** demonstrated **virucidal** activity against Human Immunodeficiency Virus (HIV), Influenza Type A, Hepatitis C, Hepatitis B, and Pandemic 2009 H1N1 Influenza A Virus, according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.
[1]**Note:** Treatment dose for Hepatitis B was 6oz/gal dilution in 200 ppm hard water, 5% organic soil load, room temperature.
Note: Per the EPA guidance document dated October 21, 2009, disinfectant products that bear label claims against human, avian, or swine influenza A virus, and have submitted and received approval of efficacy data to support these label claims, may include a label claim against the Pandemic 2009 H1N1 Influenza A Virus.

NON-FOOD CONTACT SANITIZATION DATA:

Test Method: Sanitizer Test for Inanimate, Hard, Nonporous Non-Food Contact Surfaces (ASTM E1153-14)

Test Conditions: 2 oz/gal dilution, 5% organic soil load, 30 second contact time, 200 ppm hard water, room temperature

Results:

Test Organism	***Contact Time***	***Sample***	**% Kill**
Staphylococcus aureus (ATCC 6538)	30 seconds	A	>99.9
	30 seconds	B	>99.9
	30 seconds	C	>99.9
Enterobacter aerogenes (ATCC 4532)	30 seconds	A	>99.9
	30 seconds	B	>99.9
	30 seconds	C	>99.9

Conclusion: Under the conditions of these investigations, **OxyPro** demonstrated **sanitizing** activity against *Staphylococcus aureus* and *Enterobacter aerogenes* according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.

MILDEWSTAT:

Test Method: AOAC Use Dilution (Mildew-Fungistatic Test)

Test Organism: *Aspergillus niger* (ATCC 6275)

Test Conditions: 2 oz/gal dilution, 5% organic soil load, 200 ppm hard water, room temperature, ceramic tile carriers

Results:

Sample	*No. of Carriers Exposed*	*Positive*
A	10	0
B	10	0

Conclusion: Under the conditions of this investigation, **OxyPro** demonstrated **mildewstatic** activity against *Aspergillus niger* according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a mildewstat.

Revised: 10/24/2022
Revision #: 1 (MJJ)