



TECHNICAL INFORMATION

EFFICACY DATA for PRO-SERIES® DISINFECTANT WIPE (EPA Reg. No. 1839-190-69463)

BACTERICIDAL DATA:

Test Method: AOAC Germicidal Spray Products as Disinfectants modified for Pre-saturated or Impregnated Disinfectant Towelettes and; AOAC Germicidal Spray Products (Based on U.S. EPA Pesticide Assessment Guidelines, Subdivision G; Product Performance 91-2 (i) and 91-3)

Test Conditions: Ready-To-Use (RTU), Contact time (see below), 5% organic soil load, room temperature, glass slide carrier substrates

Results:

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Test Organism	Sample	Contact Time	Positive
Pseudomonas aeruginosa (ATCC 15442)	А	2 minutes	0
	В	2 minutes	0
	С	2 minutes	0
Salmonella enterica	А	2 minutes	0
(ATCC 10708)	В	2 minutes	0
	С	2 minutes	0
Staphylococcus aureus (ATCC 6538)	А	2 minutes	0
	В	2 minutes	0
	С	2 minutes	0
Community Associated Methicillin resistant Staphylococcus aureus	А	2 minutes	0
(CA-MRSA) Genotype USA300	В	2 minutes	0
Community Associated Methicillin resistant Staphylococcus aureus	А	2 minutes	0
(CA-MRSA) Genotype USA400	В	2 minutes	0
Multi-Drug Resistant (MDR) <i>Acinetobacter baumannii</i> Ceftazidime and Gentamicin Resistant	А	2 minutes	0
	В	2 minutes	0
Extended Spectrum Beta-Lactamase (ESBL) <i>Escherichia coli</i> (ATCC BAA-196)	А	2 minutes	0
	В	2 minutes	0
Escherichia coli 0157:H7	А	5 minutes	0
(ATCC 43895)	В	5 minutes	0
	С	5 minutes	0
Klebsiella pneumoniae New Dehli Metallo-Beta Lactamase (NDM-1)	А	2 minutes	0
Carbapenem Resistant [Antibiotic Resistance to Penicillin, Gentamicin, Ceftadizime]	В	2 minutes	0
Methicillin resistant <i>Staphylococcus aureus</i> (MRSA) (ATCC 33591)	Α	2 minutes	0
	В	2 minutes	0
Streptococcus pyogenes	А	5 minutes	0
(ATCC 19615)	В	5 minutes	0
	С	5 minutes	0
Vancomycin intermediate resistant Staphylococcus aureus (VISA)	А	2 minutes	0
(ATCC 700699)	В	2 minutes	0
Vancomycin resistant <i>Enterococcus faecium</i> (VRE) (ATCC 51559)	А	5 minutes	0
	В	5 minutes	0

Conclusion: Under the conditions of these investigations, PRO-SERIES® Disinfectant Wipe demonstrated disinfectant activity against Pseudomonas aeruginosa, Salmonella enterica, Staphylococcus aureus, Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA) Genotype USA300, Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA), Genotype USA400, Escherichia coli 0157:H7, Klebsiella pneumoniae New Dehli Metallo-Beta Lactamase (NDM-I) Carbapenem Resistant, Methicillin resistant Staphylococcus aureus (MRSA), Streptococcus aureus (MRSA), Streptococcus aureus (MRSA), Streptococcus aureus (MRSA), Streptococcus aureus (MRSA), and Vancomycin resistant Enterococcus faecium (VRE) 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 Method: *U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, 1982, Section 91-30 (d) (5),

"Disinfectants - Efficacy against Viruses", pp. 72-76.

†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.

^ ASTM International E1053-20 "Standard Test Method to Assess Virucidal Activity of Chemicals Intended for Disinfection of Inanimate, Nonporous Environmental Surfaces"

Test Conditions: Ready-To-Use (RTU), 5% organic soil load, room temperature, glass petri dish substrates

Results:

Test Organism	Contact Time	Sample	Titer Reduction
‡Bovine Viral Diarrhea Virus (BVDV)	1	А	≥5.00 log ₁₀
	1 minute –	В	≥5.00 log ₁₀
†Duck Hepatitis B Virus (DHBV)	1	А	≥3.39 log ₁₀
	1 minute –	В	≥3.39 log ₁₀
†Hepatitis B Virus (HBV)	1 mains sta	А	≥3.39 log ₁₀
	1 minute –	В	≥3.39 log ₁₀
‡Hepatitis C Virus (HCV)	1 minute –	А	≥5.00 log ₁₀
	i minute —	В	≥5.00 log ₁₀
*Herpes Simplex Virus 1 (HSV-1)	2 minutes –	Α	≥3.50 log ₁₀
(ATCC VR-260)	2 minutes –	В	≥3.50 log ₁₀
*Herpes Simplex Virus 2 (HSV-2)	2 minutes –	Α	≥3.25 log ₁₀
(ATCC VR-734)	2 minutes –	В	≥3.25 log ₁₀
*Human Coronavirus (ATCC VR-740, strain 229E)	2 minutes –	Α	≥3.00 log ₁₀
	Z minutes —	В	≥3.00 log ₁₀
*Human Immunodeficiency Virus Type 1 (HIV-1)	30 seconds —	Α	≥3.38 log ₁₀
	30 seconds	В	≥3.38 log ₁₀
*Influenza A2/305/57 (H2N2)	_	Α	≥4.83 log ₁₀
	2 minutes	В	≥4.83 log ₁₀
		С	≥4.83 log ₁₀
^SARS-CoV-2 (USA-WA1/2020)	_	Α	>4.00 log ₁₀
	30 seconds	В	>4.00 log ₁₀
		С	>4.00 log ₁₀
^Influenza A Virus (H1N1)	1 minute –	Α	≥3.25 log ₁₀
	Tillilate	В	≥3.25 log ₁₀
^Avian Influenza Virus (H5N1)	30 seconds –	А	≥3.00 log ₁₀
	Jo seconds	В	≥3.00 log ₁₀
^Human Rotavirus (ATCC VR-2018)	1 minute –	Α	≥3.25 log ₁₀
	Tillilate	В	≥3.25 log ₁₀
^Feline Calicivirus (FCV) (ATCC VR-782)	2 minutes –	А	≥3.00 log ₁₀
	2 minutes	В	≥3.00 log ₁₀
^Norovirus (Norwalk Virus)	2 minutes –	Α	≥3.00 log ₁₀
	2 minutes	В	≥3.00 log ₁₀
^Rhinovirus Type 14 (ATCC VR-284)	2 minutes –	Α	≥3.25 log ₁₀
	Z minutes –	В	≥3.26 log ₁₀
^Rhinovirus Type 39 (ATCC VR-340)	2 minutes –	Α	≥4.50 log ₁₀
	Z ITIIITULES	В	≥4.50 log ₁₀

Conclusion: Under the conditions of this investigation, PRO-SERIES® Disinfectant Wipe demonstrated virucidal activity against Bovine Viral Diarrhea Virus (BVDV), Duck Hepatitis B Virus (DHBV), Hepatitis B Virus (HVB), Hepatitis C Virus (HCV), Herpes Simplex Virus 1, Herpes Simplex Virus 2, Human Coronavirus, Human Immunodeficiency Virus Type 1 (HIV-1), Influenza A2/305/57 Virus (H2N2), SARS-CoV-2, Influenza A Virus (H1N1), Avian Influenza Virus (H5N1), Human Rotavirus, Feline Calicivirus (FCV), Norovirus (Norwalk Virus), Rhinovirus Type 14 and Rhinovirus Type 39 according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.

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FUNGICIDAL DATA:

Test Method: AOAC Fungicidal Activity of Disinfectants

Test Conditions: Ready-To-Use (RTU), 3 minute contact time, 5% organic soil load, room temperature, glass slide substrates

Results:		No. of Carriers	
Test Organism	Sample	Exposed	Positive
Trichophyton mentagrophytes	А	10	0
(ATCC 9533)	В	10	0
	С	10	0

Conclusion: Under the conditions of this investigation, PRO-SERIES® Disinfectant Wipe demonstrated fungicidal activity against Trichophyton mentagrophytes according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a fungicide.

NON-FOOD CONTACT SANITIZATION DATA:

Test Method: Sanitizer Test for Inanimate Non-Food Contact Surfaces (EPA DIS/TSS-10, 07 Jan 82)

Test Conditions: Ready-To-Use (RTU), 5% organic soil load, room temperature

Results:

Test Organism		Sample	Contact Time	% Kill
Escherichia coli O157:H7 (ATCC 43895)		А	15 seconds	>99.9
		В		>99.9
	_	С		>99.9
Klebsiella pneumoniae (ATCC 4352)		А	15 seconds	>99.9
		В		>99.9
	_	С		>99.9
Listeria monocytogenes (ATCC 35152)		А	15 seconds 	>99.9
		В		>99.9
	_	С		>99.9
Staphylococcus aureus (ATCC 6538)		А	15 seconds 15 -	>99.9
		В		>99.9
		С		>99.9
Campylobacter jejuni (ATCC 29428)		А		>99.9
		В	60 seconds	>99.9
		С	-	>99.9

Conclusion: Under the conditions of these investigations, PRO-SERIES® Disinfectant Wipe demonstrated sanitizing activity against Escherichia coli 0157:H7, Klebsiella pneumoniae, Listeria monocytogenes, Staphylococcus aureus and Campylobacter jejuni according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.

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