EFFICACY DATA for FACILITY MAINTENANCE GP-20 quaternary tuberculocidal SPRAY DISINFECTANT CLEANER DEGREASER (EPA Reg. No. 1839-83-83690)

VIRUCIDAL DATA:

Test Method: * 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: 5% serum, 10 minute contact time, glass petri dish substrates for Hepatitis A Virus, Canine Parvovirus and Poliovirus; 5 minute contact time for Hepatitis B Virus and Hepatitis C Virus; 1 minute contact time for Human Immunodeficiency Virus (HIV-1)(associated with AIDS)

Results:

Test Organism	Sample	Titer Reduction (after 10 minute contact)
*Hepatitis A Virus (HAV)	A & B	≥3.0 log
†Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV)	A & B	≥3.0 log
‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV)	A & B	≥5.5 log
*Poliovirus Type 1, strain Brunhilde (ATCC VR-1000)	A & B	≥3.25 log
*Human Immunodeficiency Virus, HTLV-III_{RF}, strain of HIV-1 (associated with AIDS)	A & B	≥3.5 log
*Canine Parvovirus (ATCC VR-2017)	A & B	≥3.0 log

Test Method: * 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 Human Corona Virus.

Test Conditions: 5% serum, 2 minute contact time, glass petri dish substrates

Results:

Test Organism	Sample	Titer Reduction (after 2 minute contact)
Human Coronavirus	A & B	≥3.0 log

Test Method: * 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 Norwalk Virus, Feline Calicivirus, Rabies Virus.

Test Conditions: 5% serum, 30 second contact time, glass petri dish substrates

Results:

Test Organism	Sample	Titer Reduction (after 30 second contact)
Norwalk Virus (Feline Calicivirus as surrogate)	A & B	6.48 log
Feline Calicivirus	A & B	6.48log
Rabies Virus	A &B	≥3.0 log

Conclusion: Under the conditions of this investigation, product was **virucidal** for Hepatitis A Virus (HAV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Poliovirus Type 1, Human Immunodeficiency Virus (HIV-1), and Canine Parvovirus, Human Coronavirus, Norwalk Virus, Feline Calicivirus and Rabies Virus 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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TUBERCULOCIDAL DATA:

Test Method: AOAC Confirmative In Vitro Test for Determining Tuberculocidal Activity

Test Organism: Mycobacterium bovis BCG (OT 105401)
Test Conditions: 5% serum, 5 minute contact time, glass slide carrier substrates

Results:

Subculture Media	Sample	PHENOL RESISTANCE No. of Exposed Carriers	No. of Carriers Showing Growth (after 5 min. contact)	Dilution	No. of Carriers Showing Growth (62 days)	(90 days)
modified Proskauer-Beck Medium	A	10	0	1:50	0	0
	B	10	0	1:75	0	0
Middlebrook 7H9 Broth	A	10	0	1:50	0	0
	B	10	0	1:75	10	10
Kirchners Medium	A	10	0	1:50	0	0
	B	10	0	1:75	5	6

Conclusion: Under the conditions of this investigation, product was tuberculocidal for Mycobacterium bovis according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a tuberculocide.

MILDEW FUNGISTATIC DATA: Test Method: EPA Hard Surface Mildew Fungistatic Test

Test Organism: Aspergillus niger (ATCC 6275)

Test Conditions: glazed ceramic tile substrates

Results:

Sample	No. of Exposed Tiles	No. of Tiles Showing Growth
GP-20	10	0
Control	10	10

Conclusion: Under the conditions of this investigation, product was fungistatic for Aspergillus niger according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a fungistat.

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BACTERICIDAL AND FUNGICIDAL DATA:

Test Methods: AOAC Germicidal Spray Products as Disinfectants

Test Conditions: 5% serum, 3 minute contact time, glass slide carrier substrates, Model 4 Bakan 22/415 pump sprayer or equivalent

Results:

Organism	Sample	No. of Carriers Exposed	Positive
Staphylococcus aureus (ATCC 6538)	A	60	0
	B	60	0
	C	60	0
Salmonella choleraesuis (ATCC 10708)	A	60	0
	B	60	0
	C	60	0
Pseudomonas aeruginosa PRD-10 (ATCC 15442)	A	60	0
	B	60	0
	C	60	0
Corynebacterium ammoniagenes (ATCC 6871)	A	10	0
	B	10	0
Enterococcus faecium (ATCC 6569)	A	10	0
	B	10	0
Enterococcus faecalis (Vancomycin resistant) (VRE) (ATCC 51575)	A	10	0
	B	10	0
Escherichia coli (ATCC 11229)	A	10	0
	B	10	0
Escherichia coli 0157:H7 (ATCC 35150)	A	10	0
	B	10	0
Listeria monocytogenes (ATCC 35152)	A	10	0
	B	10	0
Salmonella typhi (ATCC 16539)	A	10	0
	B	10	0
Staphylococcus aureus (Methicillin resistant) (MRSA) (ATCC 33593)	A	10	0
	B	10	0

BACTERICIDAL DATA Cont.

Staphylococcus aureus (Community Associated-Methicillin resistant) (CA-MRSA) (Genotype USA 300)	A	10	0
	B	10	0
Staphylococcus aureus (Community Associated-Methicillin resistant) (CA-MRSA) (Genotype USA 400)	A	10	0
	B	10	0
Staphylococcus aureus (Vancomycin intermediate resistant) (VISA) (HIP 5836)	A	10	0
	B	10	0
Streptococcus pyogenes (ATCC 19615)	A	10	0
	B	10	0
Yersinia enterocolitica (ATCC 23715)	A	10	0
	B	10	0
Trichophyton mentagrophytes (ATCC 9533)	A	60	0
	B	60	0
	C	60	0

Conclusion: Under the conditions of this investigation, product was bactericidal for Staphylococcus aureus, Salmonella choleraesuis, Pseudomonas aeruginosa, Corynebacterium ammoniagenes, Enterococcus faecium, Enterococcus faecalis (Vancomycin resistant) (VRE), Escherichia coli, Escherichia coli 0157:H7, Salmonella typhi, Staphylococcus aureus (Methicillin resistant) (MRSA), Staphylococcus aureus (Community Associated-Methicillin resistant) (CA-MRSA)(Genotype USA 300), Staphylococcus aureus (Community Associated-Methicillin resistant) (CA-MRSA)(Genotype USA 400), and Staphylococcus aureus (Vancomycin intermediate resistant) (VISA), Streptococcus pyogenes, Yersinia colitica and fungicidal for Trichophyton mentagrophytes according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide and fungicide.