



EFFICACY DATA for GERMI-KLEEN Non-Acid Disinfectant Bathroom Cleaner (#1715)

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.
• Modified U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, Section 91-2(f), and Section 91-30 (d), (e), November, 1982.
Test Conditions: ready-to-use (RTU), organic soil load, room temperature, glass petri dish substrates

Results:

Table with 5 columns: Test Organism, Sample, Titer Reduction, Contact Time. Rows include Avian Influenza A Virus, Hepatitis A Virus, Hepatitis B Virus, etc.

Conclusion: Under the conditions of this investigation, GERMI-KLEEN Non-Acid Disinfectant Bathroom Cleaner demonstrated virucidal



activity against Avian Influenza A Virus (H3N2), Avian Influenza Virus Type A (H9N2), Bovine Viral Diarrhea Virus (BVDV), Canine Parvovirus, Feline Calicivirus (FCV), Hepatitis A Virus (HAV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Human Immunodeficiency Virus (HIV-1), Human Coronavirus, Norovirus (Norwalk Virus), Pandemic 2009 H1N1 Influenza A Virus, Paramyxovirus (Mumps), Poliovirus Type 1, Rabies, Rhinovirus Type 39, Rotovirus, and SARS Associated Coronavirus according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.

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.

TUBERCULOCIDAL DATA:

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

Test Organism: Mycobacterium bovis BCG

Test Conditions: ready-to-use (RTU), organic soil load, 5 minute contact time, glass slide carrier substrates

Results:

Table with 4 columns: Subculture Media, Sample, No. of Exposed Carriers, No. of Carriers Showing Growth. Rows include modified Proskauer-Beck Medium, Middlebrook 7H9 Broth, and Kirchners Medium.

Conclusion: Under the conditions of this investigation, GERMI-KLEEN Non-Acid Disinfectant Bathroom Cleaner was tuberculocidal for Mycobacterium bovis (BCG) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a tuberculocide.

FUNGICIDAL DATA:

Test Method: AOAC Germicidal Spray Products as Disinfectants

Test Conditions: ready-to-use (RTU), organic soil load, room temperature, glass slide carrier substrates

Results:

Table with 5 columns: Organism, Sample, Exposed, Positive, Contact Time. Row for Trichophyton mentagrophytes (ATCC 9533).

Conclusion: Under the conditions of this investigation, GERMI-KLEEN Non-Acid Disinfectant Bathroom Cleaner was 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 fungicide.



BACTERICIDAL DATA:

Test Method: AOAC Germicidal Spray Products as Disinfectants

Test Conditions: ready-to-use (RTU), organic soil load, room temperature, glass slide carrier substrates

Results:

Organism	Sample	Exposed	No. of Carriers	
			Positive	Contact Time
<i>Staphylococcus aureus</i> (ATCC 6538)	A	60	0	3 minutes
	B	60	1	
<i>Salmonella (choleraesuis) enterica</i> (ATCC 10708)	A	60	0	3 minutes
	B	60	0	
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	A	60	0	3 minutes
	B	60	0	
Community Associated Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA) (NRS 123) Genotype USA400	A	10	0	3 minutes
	B	10	0	
Community Associated Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA) (NRS 384) Genotype USA300	A	10	0	3 minutes
	B	10	0	
<i>Corynebacterium ammoniagenes</i> (ATCC 6871)	A	10	0	3 minutes
	B	10	0	
<i>Enterococcus faecium</i> (ATCC 6569)	A	10	0	3 minutes
	B	10	0	
<i>Escherichia coli</i> (ATCC 11229)	A	10	0	3 minutes
	B	10	0	
<i>Escherichia coli</i> O157:H7 (ATCC 43895)	A	10	0	3 minutes
	B	10	0	
<i>Listeria monocytogenes</i> (ATCC 35152)	A	10	0	3 minutes
	B	10	0	
Methicillin resistant <i>Staphylococcus aureus</i> (MRSA) (ATCC 33593)	A	10	0	3 minutes
	B	10	0	
Methicillin resistant <i>Staphylococcus epidermidis</i> (MRSE) (ATCC 51625)	A	10	0	3 minutes
	B	10	0	
<i>Salmonella (typhi) enterica</i> (ATCC 6539)	A	10	0	3 minutes
	B	10	0	
<i>Streptococcus pyogenes</i> (Necrotizing Fasciitis-Group A) (V.A. Medical Center Isolate 04001)	A	10	0	3 minutes
	B	10	0	
Vancomycin resistant <i>Enterococcus faecalis</i> (VRE) (ATCC 51575)	A	10	0	3 minutes
	B	10	0	
Vancomycin intermediate resistant <i>Staphylococcus aureus</i> (VISA) (CDC Isolate 99287)	A	10	0	3 minutes
	B	10	0	
<i>Yersinia enterocolitica</i> (ATCC 23715)	A	10	0	3 minutes
	B	10	0	

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**BACTERICIDAL DATA (continued):**

**Conclusion:** Under the conditions of this investigation, GERMI-KLEEN Non-Acid Disinfectant Bathroom Cleaner was bactericidal for *Staphylococcus aureus*, *Salmonella (choleraesuis) enterica*, *Pseudomonas aeruginosa*, Community Associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA) (NRS 123) Genotype USA400, Community Associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA) (NRS 384) Genotype USA300, *Corynebacterium ammoniagenes*, *Enterococcus faecium*, *Escherichia coli*, *Escherichia coli* O157:H7, *Listeria monocytogenes*, Methicillin resistant *Staphylococcus aureus* (MRSA), Methicillin resistant *Staphylococcus epidermidis* (MRSE), *Salmonella (typhi) enterica*, *Streptococcus pyogenes* (Necrotizing Fasciitis-Group A), Vancomycin resistant *Enterococcus faecalis* (VRE), Vancomycin intermediate resistant *Staphylococcus aureus* (VISA) and *Yersinia enterocolitica* according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.

**MILDEW FUNGISTATIC DATA:**

**Test Method:** EPA Hard Surface Mildew Fungistatic Test

**Test Organism:** *Aspergillus niger* (ATCC 6275)

**Test Conditions:** glazed ceramic tile substrates

**Results:**

<u>Sample</u>	<u>No. of Exposed Tiles</u>	<u>No. of Tiles Showing Growth</u>
DDPS	10	0
Control	10	10

**Conclusion:** Under the conditions of this investigation, GERMI-KLEEN Non-Acid Disinfectant Bathroom Cleaner demonstrated fungistatic 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 fungistat.