

Septin/420

Efficacy Data

EPA Reg. No. 1839-95-34991

DISINFECTANT CLEANER

VIRUCIDAL ACTIVITY

Test Method: *U.S. EPA Pesticide Assessment Guidelines, Subdivision G: Product Performance, 1982, Section 91-30, pp. 72-76.

† Virucide Assay (EPA, Federal Register 10, No. 123, 6/25/75, p. 26836)

■ 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 dilution, 10 minute contact time - glass petri dish substrates - tested in the presence of serum.

Results:

<u>Test Organism</u>	<u>Sample</u>	<u>Titer Reduction</u>
†Adenovirus Type 2	A&B	3.0 log ₁₀ >3.0 log ₁₀
‡Bovine Viral Diarrhea Virus (BVDV)	A&B	6.1 log ₁₀ 3.8 log ₁₀
*Feline Calicivirus (FCV)	A&B	5.79 log ₁₀ >6.06 log ₁₀
■Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV)	A&B	4.5 log ₁₀ 4.5 log ₁₀
‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV)	A&B	6.1 log ₁₀ 3.8 log ₁₀
†Herpes Simplex Type I (Sabin)	A&B	≥4.0 log ₁₀ ≥3.7 log ₁₀
*Human Coronavirus (ATCC VR-740, strain 229E)	A&B	≥3.0 log ₁₀ ≥3.0 log ₁₀
*Human Immunodeficiency Virus, HTLV-III _{RF} , strain of HIV-1 (associated with AIDS)	A&B	≥3.0 log ₁₀ ≥3.0 log ₁₀
†Influenza A ² (Japan 305/57)	A&B	≥6.5 log ₁₀ ≥6.0 log ₁₀
*Norovirus (Norwalk Virus) (FCV)	A&B	5.79 log ₁₀ ≥6.06 log ₁₀
†Vaccinia (Wyeth)	A&B	>3.5 log ₁₀ >3.5 log ₁₀

CONCLUSION: Under the conditions of this investigation, SEPTIN/420 was **virucidal** for Adenovirus Type 2, Bovine Viral Diarrhea Virus (BVDV), Feline Calicivirus (FCV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type I (Sabin), Human Coronavirus, Human Immunodeficiency Virus (HIV), Influenza A₂ (Japan 305/57), Norovirus (Norwalk Virus) and Vaccinia (Wyeth) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.

FUNGISTATIC AGAINST MILDEW

Test Method: Hard Surface Mildew Fungistatic Test (Unofficial Protocol 10/27/706) using SEPTIN/420 at a dilution of 1:64.

Test Organism: *Aspergillus niger* (ATCC 6275)

Test Conditions: tile substrates

Results:

<u>Sample</u>	<u>No. of Exposed Tiles</u>	<u>No. of Tiles Showing Growth</u>
Septin/420	10	10
CONTROL	10	10

CONCLUSION: Under the conditions of this investigation, SEPTIN/420 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.

FUNGICIDAL ACTIVITY

Test Method: AOAC Fungicidal

Test Organism: *Trichophyton mentagrophytes* (ATCC 9533)

Test Conditions: 5% organic soil load - 20°C exposure temperature - 2 oz/gal dilution

Results:

Sample	Dilution	Exposure Time (min) vs. Growth			PHENOL RESISTANCE			
		5	10	15	Dilution	Exposure Time (min) vs. Growth		
						5	10	15
A	2 oz/gal	+	0	0	1:60	+	0	0
B	2 oz/gal	+	0	0	1:70	+	+	+
					1:60	+	0	0
					1:70	+	+	0

+ = growth 0 = no growth

CONCLUSION: Under the conditions of this investigation, SEPTIN/420 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.

DISINFECTION DATA

Test Method: AOAC Use Dilution

Test Conditions: 5% organic soil load - 10 minute contact time - stainless steel carrier substrates - 20°C exposure temperature - 2 oz/gal dilution

Results:

Test Organism	Sample	No. of Carriers		PHENOL RESISTANCE			
		Exposed	Positive	Dilution	5	10	15
<i>Staphylococcus aureus</i> (ATCC 6538)	A	60	0	1:60	+	0	0
	B	60	0	1:70	+	+	+
	C	60	0				
<i>Salmonella choleraesuis</i> (ATCC 10708)	A	60	0	1:90	+	0	0
	B	60	0	1:100	+	+	+
	C	60	0				
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	A	60	0	1:80	+	0	0
	B	60	0	1:90	+	+	+
	C	60	0				
<i>Brevibacterium ammoniagenes</i> (ATCC 6871)	A	10	0	1:110	+	0	0
	B	10	0	1:120	+	+	+
<i>Enterobacter aerogenes</i> (ATCC 13048)	A	10	0	1:80	+	0	0
	B	10	0	1:90	+	+	+
<i>Escherichia coli</i> (ATCC 11229)	A	10	0	1:90	+	0	0
	B	10	0	1:100	+	+	+
<i>Klebsiella pneumoniae</i> (ATCC 4352)	A	10	0	1:60	+	0	0
	B	10	0	1:70	+	+	+
<i>Salmonella schottmuelleri</i> (ATCC 8759)	A	10	0	1:90	+	0	0
	B	10	0	1:100	+	+	+
<i>Shigella dysenteriae</i> (ATCC 12180)	A	10	0	1:90	+	0	0
	B	10	0	1:100	+	+	+
<i>Staphylococcus aureus</i> (Methicillin resistant) (MRSA) (ATCC 33593)	A	10	0	Not determined; published information not available.			
	B	10	0	Not determined; published information not available.			
<i>Staphylococcus aureus</i> (Vancomycin intermediate resistant) (VISA) (HIP 5836)	A	10	0	Not determined; published information not available.			
	B	10	0	Not determined; published information not available.			
<i>Streptococcus faecalis</i> (ATCC 10541)	A	10	0	1:70	+	0	0
	B	10	0	1:80	+	+	+
<i>Streptococcus pyogenes</i> (Clinical-Flesh Eating Strain, BIRD M3)	A	10	0	Not determined; published information not available.			
	B	10	0	Not determined; published information not available.			
<i>Streptococcus salivarius</i> (ATCC 9222)	A	10	0	1:120	+	0	0
	B	10	0	1:130	+	+	+

+ = growth 0 = no growth

CONCLUSION: Under the conditions of this investigation, SEPTIN/420 was **disinfectant** for *Staphylococcus aureus*, *Salmonella choleraesuis*, *Pseudomonas aeruginosa*, *Brevibacterium ammoniagenes*, *Enterobacter aerogenes*, *Escherichia coli*, *Klebsiella pneumoniae*, *Salmonella schottmuelleri*, *Shigella dysenteriae*, Methicillin resistant *Staphylococcus aureus* (MRSA), Vancomycin intermediate resistant *Staphylococcus aureus* (VISA), *Streptococcus faecalis*, *Streptococcus pyogenes* (Clinical-Flesh Eating strain, BIRD M3) and *Streptococcus salivarius* according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.