

MARK E IITM

ONE-STEP DISINFECTANT, GERMICIDAL DETERGENT AND DEODORANT

Efficacy Summary

Disinfectant, Cleaner, Mildewstat, Sanitizer (nonfood contact surfaces) Virucide*, Deodorizer for Hospitals, Institutional, Industrial and School Use. Effective as a disinfectant in hard water up to 400 ppm hardness (Calculated as CaCO₃) in the presence of 5% serum contamination.

Mark E II is phosphate free, pH neutral and designed to provide effective cleaning, deodorizing and disinfection. Mark E II has been formulated with mild, pH neutral detergents to thoroughly clean without softening or damaging the floor finish. Its neutral pH chemistry is ideal for use on hard surfaces because it works without leaving a film or residue. In applications where high alkalinity may be detrimental to the surface, the use of a neutral pH cleaner will remove the dirt that can degrade the surface, while restoring the shine and extending the life of the finish.

Mark E II sets a new industry standard for superior no-rinse cleaning of finished floors.

Mark E II was optimized first as a superior cleaner, then was "activated" with the most effective quat mixture to give you the best of both worlds. Dialkyl quats typically exhibit the highest biocidal efficacy of all quaternary compounds. This performance advantage is especially evident in hard water and organic soil load conditions, compared with other typical quats.

Mark E II is a "One Step" disinfectant cleaner. Under normal use, no pre-cleaning step is required. Hard surface disinfection can best be achieved when it is accomplished as part of a one-step operation involving a disinfectant / cleaner. If a germicidal agent alone is applied to a dirty surface, it will kill those organisms which it contacts, but many of them will be surrounded by soil and unaffected by the chemical. It is critical that the disinfectant quaternary be combined with an optimized detergent system to provide effective cleaning and disinfection.

Finished floor maintenance accounts for the largest portion of janitorial cost in both labor and materials. A two-step procedure doubles your maintenance costs and greatly increases the chance of cross-contamination with the microorganisms picked up in the pre-cleaning process. Modern institutional housekeeping practices demand a one-step cleaning and disinfection process.

Mark E II is a 1:256 (1/2 ounce per gallon) product. It is Stearns' most concentrated liquid disinfectant, offering the lowest end-use per-gallon costs.

<p>Mark E II One-Step Disinfectant, Germicidal Detergent And Deodorant was evaluated with a 10-minute contact time and found to be bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum against:</p>		
<p><i>Acinetobacter baumannii</i> (ATCC #19606) <i>Acinetobacter calcoaceticus</i> (ATCC #51432) <i>Burkholderia cepacia</i> (ATCC #25416) <i>Campylobacter jejuni</i> (ATCC #29428) <i>Corynebacterium ammoniagenes</i> (ATCC #6871) <i>Enterobacter aerogenes</i> (ATCC #13048) <i>Enterobacter cloacae</i> (ATCC #13047) <i>Enterococcus faecalis</i> (ATCC #19433) <i>Enterococcus faecalis</i> Multiple Drug Resistant <i>Enterococcus faecalis</i> (Gentamycin Resistant) <i>Enterococcus faecalis</i> (Streptomycin Sensitive) <i>Enterococcus faecalis</i> (Vancomycin Resistant) (VRE) <i>Enterococcus faecalis</i> (Ciprofloxacin Sensitive) <i>Enterococcus faecalis</i> (Penicillin G Sensitive) <i>Enterococcus faecalis</i> (Tetracycline Sensitive) <i>Enterococcus faecium</i> (Vancomycin Resistant) (VRE) <i>Escherichia coli</i> (ATCC #8739) <i>Escherichia coli</i> Antibiotic Resistant (GBL-NC 128) <i>Escherichia coli</i> (Ampicillin Resistant) <i>Escherichia coli</i> (Cephalothin Resistant) <i>Escherichia coli</i> (Ciprofloxacin Resistant) <i>Escherichia coli</i> (Gentamycin Resistant) <i>Escherichia coli</i> (Mezlocillin Resistant) <i>Escherichia coli</i> (Ticarcillin Resistant)</p>	<p><i>Escherichia coli</i> (Tobramycin Resistant) <i>Escherichia coli</i> (Trimeth-Sulfa Resistant) <i>Escherichia coli</i> (Oxacillin Resistant) <i>Escherichia coli</i> (Cefotaxime Sensitive) <i>Escherichia coli</i> (Cefotetan Sensitive) <i>Escherichia coli</i> (Ceftizoxime Sensitive) <i>Escherichia coli</i> O157:H7 (ATCC #29428) <i>Klebsiella pneumoniae</i> (ATCC #13883) <i>Klebsiella pneumoniae</i> Antibiotic Resistant (ATCC #GBL-NC131) <i>Klebsiella pneumoniae</i> (Ampicillin Resistant) <i>Klebsiella pneumoniae</i> (Cefotaxime-Intermediate Resistant) <i>Klebsiella pneumoniae</i> (Ceftizoxime-Intermediate Resistant) <i>Klebsiella pneumoniae</i> (Cephalothin Resistant) <i>Klebsiella pneumoniae</i> (Ciprofloxacin Resistant) <i>Klebsiella pneumoniae</i> (Gentamycin Resistant) <i>Klebsiella pneumoniae</i> (Mezlocillin Resistant) <i>Klebsiella pneumoniae</i> (Ticarcillin Resistant) <i>Klebsiella pneumoniae</i> (Tobramycin Resistant) <i>Klebsiella pneumoniae</i> (Oxacillin Resistant) <i>Klebsiella pneumoniae</i> (Cefotetan Sensitive) <i>Klebsiella pneumoniae</i> (Trimeth-sulfa Sensitive) <i>Listeria monocytogenes</i> (ATCC #984) <i>Proteus vulgaris</i> (ATCC #3342) <i>Pseudomonas aeruginosa</i> <i>Salmonella enterica</i> (ATCC #10708)</p>	<p><i>Salmonella schottmuelleri</i> (ATCC #8759) <i>Salmonella typhi</i> (ATCC #6539) <i>Salmonella typhimurium</i> (ATCC #14028) <i>Serratia marcescens</i> (ATCC #GBL-NC 78) <i>Shigella dysenteriae</i> (ATCC #9361) <i>Shigella flexneri</i> (ATCC #12022) <i>Shigella sonnei</i> (ATCC #929) <i>Staphylococcus aureus</i> <i>Staphylococcus aureus</i> Multiple Drug Resistant (ATCC #GBL-NC 56) <i>Staphylococcus aureus</i> (Ampicillin Resistant) <i>Staphylococcus aureus</i> (Cefotaxime Resistant) <i>Staphylococcus aureus</i> (Cephalothin Resistant) <i>Staphylococcus aureus</i> (Ciprofloxacin Sensitive) <i>Staphylococcus aureus</i> (Clindamycin Resistant) <i>Staphylococcus aureus</i> (Erythromycin Resistant) <i>Staphylococcus aureus</i> (Methicillin Resistant) (MRSA) (ATCC #GBL-NC 52) <i>Staphylococcus aureus</i> (Oxacillin Resistant) <i>Staphylococcus aureus</i> (Penicillin G Resistant) <i>Staphylococcus aureus</i> (Tetracycline-Intermediate Resistant) <i>Staphylococcus aureus</i> (Trimeth/Sulfa Sensitive) <i>Staphylococcus aureus</i> (Vancomycin Sensitive) <i>Staphylococcus epidermidis</i> (ATCC #1499) <i>Streptococcus pyogenes</i> (ATCC #19615)</p>
<p>Virucidal Performance: At ½ ounce per gallon use level (850 ppm quat active) (or equivalent use dilution), this product was evaluated with a 10-minute contact time and found to be effective in the presence of 5% blood serum against the following viruses on hard, non-porous surfaces:</p>		
<p>Chlamydia psittaci (#VR 125) Hepatitis B Virus (HBV) Herpes Simplex virus Type 1 (VR-260) Herpes Simplex virus Type 2 (VR-734)</p>	<p>Human Coronavirus (VR-740) Hepatitis C Virus (HCV) HIV-1 (AIDS virus) Influenza A/PR Virus (VR-95)</p>	<p>Influenza A/Brazil Vaccinia Virus</p>
<p>*KILLS HIV, HBV AND HCV ON PRECLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS in health care setting or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of human immunodeficiency virus Type 1 (HIV-1) (associated with AIDS), Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV).</p>		
<p>Fungicidal Performance: This product is effective on inanimate surfaces against the following: <i>Aspergillus niger</i></p>		

ANTIBIOTIC RESISTANT BACTERIA Today's health care environment has seen a marked increase in the incidence of antibiotic resistant bacteria. Mark E II can be used with confidence to effectively reduce the hazard of cross contamination. It has passed rigorous microbiological efficacy tests to prove its effectiveness against a substantial number of Gram negative and Gram positive antibiotic resistant bacteria. This data has been run on both ATCC cultures as well as clinical isolates.

Antibiotic Resistant Efficacy

- Test Method AOAC Use-Dilution Test
- Quat Concentration: 850 ppm active
- Test Conditions: 400 ppm hard water (as Calcium Carbonate)
- 5% blood serum

	Ampicillin	Cefotaxime	Cefotaxime Intermediate	Cefotetan	Ceftizoxime	Ceftizoxime Intermediate	Cephalothin	Ciprofloxacin	Clindamycin	Erythromycin	Gentamycin	Methicillin	Mezlocillin	Oxacillin	Penicillin G	Streptomycin	Tetracycline	Tetracycline Intermediate	Ticarcillin	Tobramycin	Trimeth-Sulfa	Vancomycin	
Enterococcus faecalis ATCC #49532											R					S							
Enterococcus faecalis Clinical Isolate								S							S		S						R
Enterococcus faecium Clinical Isolate																							R
Escherichia coli Clinical Isolate	R	S		S	S		R	R			R		R	R						R	R	R	
Klebsiella pneumoniae Clinical Isolate	R		R	S		R	R	R			R		R	R						R	R	S	
Staphylococcus aureus ATCC #33591	R	R					R	S	R	R				R	R			R				S	S
Staphylococcus aureus Clinical Isolate	R	R					R	S	R	R				R	R			R				S	S

R=Resistant
S=Sensitive

Mark E II has been tested against an extensive list of Gram Negative and Gram Positive pathogens. All of these organisms must pass the AOAC Use Dilution Test method to prove their efficacy. All this testing assures you that these products will perform and provide you with a broad spectrum of kill. Mark E II has been proven effective against ATCC cultures as well as clinical isolates.

Hospital Disinfection (at 1/2 ounce per gallon)

This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum and 400 ppm hard water with a 10 minutes contact time against:

(Testing is performed per the AOAC UDT/GST method (DIS/TSS-1). Sixty carriers are required on 3 separate lots, one of which must be > 60 days old against *Pseudomonas aeruginosa*, *Salmonella choleraesuis* and *Staphylococcus aureus*. Killing of 59 out of 60 carriers is required (total carriers = 540).)

	CARRIER POPULATION	SAMPLE	# CARRIERS	# POSITIVE
<i>Pseudomonas aeruginosa</i> ATCC #15442	2.5 X 10 ⁶ CFU/Carrier	A (60 Days Old)	60	1/60
		B	60	1/60
		C	60	0/60
<i>Salmonella choleraesuis</i> ATCC #10708	1.03 X 10 ⁶ CFU/Carrier	A (60 Days Old)	60	0/60
		B	60	1/60
		C	60	0/60
<i>Staphylococcus aureus</i> ATCC #6538	6.8 X 10 ⁴ CFU/Carrier	A (60 Days Old)	60	1/60
		B	60	0/60
		C	60	0/60

Supplemental Organisms

(Testing is performed per the AOAC UDT/GST method. Ten carriers are required on 2 separate lots against each supplemental organism. Killing of 10 out of 10 carriers is required (total carriers = 20).)

	CARRIER POPULATION	SAMPLE	# CARRIERS	# POSITIVE
<i>Acinetobacter anitratus</i> ATCC #49137	1.2 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Acinetobacter baumannii</i> ATCC #19606	5.2 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Acinetobacter calcoaceticus</i> ATCC #51432	9.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Burkholderia cepacia</i> ATCC #25416	4.3 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Campylobacter jejuni</i> ATCC #29428	2.8 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Corynebacterium ammoniagenes</i> ATCC #6871	9.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterobacter aerogenes</i> ATCC #13048	3.8 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterobacter cloacae</i> ATCC #13047	7.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterococcus faecalis</i> ATCC #19433	4.1 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterococcus faecalis</i> Ciprofloxacin Sensitive Clinical Isolate	4.15 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterococcus faecalis</i> Gentamycin Resistant ATCC # 49532	2.75 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterococcus faecalis</i> Penicillin G Sensitive Clinical Isolate	4.15 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterococcus faecalis</i> Tetracycline Sensitive Clinical Isolate	4.15 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterococcus faecalis</i> Vancomycin Resistant Clinical Isolate	4.15 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
Vancomycin Resistant <i>Enterococcus faecium</i> Clinical Isolate	1.6 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> ATCC #8739	6.7 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> Antibiotic Resistant Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Ampicillin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Cefotaxime Sensitive) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Cefotetan Sensitive) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Ceftizoxime Sensitive) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Cephalothin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Ciprofloxacin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Gentamicin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Mezlocillin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Oxacillin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Ticarcillin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Tobramycin Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> (Trimeth-Sulfa Resistant) Clinical Isolate	4.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10

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	CARRIER POPULATION	SAMPLE	# CARRIERS	# POSITIVE
<i>Escherichia coli</i> strain 0157:H7 ATCC #35150	1.1 X 10 ⁶ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> ATCC #13883	3.6 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> Antibiotic Resistant Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Ampicillin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Cefotaxime-Intermediate Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Cefotetan Sensitive) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Ceftizoxime-Intermediate Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Cephalothin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Ciprofloxacin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Gentamicin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Mezlocillin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Oxacillin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Ticarcillin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Tobramycin Resistant) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> (Trimeth-sulfa Sensitive) Clinical Isolate	3.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Listeria monocytogenes</i> ATCC #984	1.5 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Proteus vulgaris</i> ATCC #33420	2.0 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Salmonella schottmuelleri</i> ATCC #8759	4.4 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Salmonella typhi</i> ATCC #6539	4.2 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Salmonella typhimurium</i> ATCC #14028	1.4 X 10 ⁶ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Serratia marcescens</i> GBL-NC #78 and GBL-NJ #135	5.7 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Shigella dysenteriae</i> ATCC #9361	3.8 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Shigella flexneri</i> ATCC #12022	2.2 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Shigella sonnei</i> ATCC #9290	2.1 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> Methicillin Resistant ATCC #33591	1.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> Multiple Drug Resistant Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Ampicillin Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Cefotaxime Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Cephalothin Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Ciprofloxacin Sensitive) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Clindamycin Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Erythromycin Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Oxacillin Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Penicillin G Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Tetracycline-Intermediate Resistant) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Trimeth/Sulfa Sensitive) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Vancomycin Sensitive) Clinical Isolate	9.9 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus epidermidis</i> ATCC #14990	1.8 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Streptococcus pyogenes</i> ATCC #19615	4.8 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Xanthomonas axonopodis</i> pv. Citri At 2000 ppm quat active	3.26 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10

Virucidal against (at 1/2 ounce per gallon)

This product was evaluated in the presence of 5% serum and 400 ppm hard water with a 10 minute contact time and found to be effective against the following viruses on hard nonporous environmental surfaces.

(Testing is performed per EPA Guidance (DIS/TSS-7). Two separate lots are tested. Inactivation of virus must be demonstrated at all dilutions when no cytotoxicity is observed or at all dilutions above the cytotoxic level when it is observed. The data must demonstrate a 3-log reduction in viral titer for both lots.) (3 lots and 4-Log reduction for Canida).

	DRIED VIRUS CONTROL	SAMPLE	RESULT	LOG REDUCTION
Canine Coronavirus ATCC VR-809	4.5 Log ₁₀	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
		B	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Canine Distemper virus	4.5 Log ₁₀	A	≤1.5 Log ₁₀	≥3.0 Log ₁₀
		B	≤1.5 Log ₁₀	≥3.0 Log ₁₀
Hepatitis B Virus	6.34 Log ₁₀	A	1.66 Log ₁₀	4.68 Log ₁₀
		B	1.66 Log ₁₀	4.68 Log ₁₀
	6.34 Log ₁₀	Confirmatory B	1.55 Log ₁₀	4.79 Log ₁₀
Hepatitis C Virus	7.21 Log ₁₀	A	0.81 Log ₁₀	6.4 Log ₁₀
		B	0.81 Log ₁₀	6.4 Log ₁₀
	7.34 Log ₁₀	Confirmatory B	1.07 Log ₁₀	6.27 Log ₁₀
Herpes Simplex Virus Type 1 ATCC VR-260	4.5 Log ₁₀	A	≤1.5 Log ₁₀	≥3.0 Log ₁₀
		B	≤1.5 Log ₁₀	≥3.0 Log ₁₀
Herpes Simplex Virus Type 2 ATCC VR-734	5.7 Log ₁₀	A	≤1.5 Log ₁₀	≥4.2 Log ₁₀
		B	≤1.5 Log ₁₀	≥4.2 Log ₁₀
Human Coronavirus ATCC VR-740	5.5 Log ₁₀	A	≤0.5 Log ₁₀	≥5.0 Log ₁₀
		B	≤0.5 Log ₁₀	≥5.0 Log ₁₀
Human Immunodeficiency Virus type 1 (HIV 1) HTLV-IIIb	5.5 Log ₁₀	A	≤1.5 Log ₁₀	≥4.0 Log ₁₀
		B	≤1.5 Log ₁₀	≥4.0 Log ₁₀
Infectious Bovine Rhinotracheitis virus ATCC VR-188	5.2 Log ₁₀	A	≤1.5 Log ₁₀	≥3.7 Log ₁₀
		B	≤1.5 Log ₁₀	≥3.7 Log ₁₀
Influenza A virus ATCC VR-95	7.0 Log ₁₀	A	≤1.5 Log ₁₀	≥5.5 Log ₁₀
		B	≤1.5 Log ₁₀	≥5.5 Log ₁₀
Pseudorabies virus ATCC VR-135	4.7 Log ₁₀	A	≤1.5 Log ₁₀	≥3.2 Log ₁₀
		B	≤1.5 Log ₁₀	≥3.2 Log ₁₀
Vaccinia virus ATCC VR-325	5.0 Log ₁₀	A	≤1.5 Log ₁₀	≥3.5 Log ₁₀
		B	≤1.5 Log ₁₀	≥3.5 Log ₁₀

Mold and Mildew Control (at 1/2 ounce per gallon)

Use this product to control the growth of mold and mildew and their odors on hard, non-porous surfaces. Thoroughly wet all treated surfaces completely. Let air dry. Repeat application weekly or when growth or odor reappears.

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	TILE NUMBER	UNTREATED AFTER 7 DAYS	SAMPLE A AFTER 7 DAYS	SAMPLE B AFTER 7 DAYS
Aspergillus niger ATCC #6275	1	Growth 80%	No Growth 0%	No Growth 0%
	2	Growth 100%	No Growth 0%	No Growth 0%
	3	Growth 80%	No Growth 0%	No Growth 0%
	4	Growth 80%	No Growth 0%	No Growth 0%
	5	Growth 80%	No Growth 0%	No Growth 0%
	6	Growth 80%	No Growth 0%	No Growth 0%
	7	Growth 80%	No Growth 0%	No Growth 0%
	8	Growth 100%	No Growth 0%	No Growth 0%
	9	Growth 100%	No Growth 0%	No Growth 0%
	10	Growth 80%	No Growth 0%	No Growth 0%

Non-Food Contact Surface Sanitizer

Add 1 ounce of this product to 1 gallon of water to sanitize hard porous and non-porous non-food contact surfaces.

Treated surfaces must remain wet for 3 minutes. Then wipe with sponge, mop or cloth or allow to air dry. At this dilution food contact surfaces must be rinsed.

(Testing is performed per EPA Guidance (DIS/TSS-10). Three lots are required, one of which must be > 60 days old. Testing is performed against Staphylococcus aureus and Klebsiella pneumoniae containing 5% organic load. Enterobacter aerogenes may be substituted for Klebsiella pneumoniae. The results must show a reduction of at least 99.9% (3 Log₁₀) in the number of each test microorganism over the parallel control count within 5 minutes.)

	CARRIER POPULATION	SAMPLE	60 SECOND KILL CFU/CARRIER	3 MINUTE KILL CFU/CARRIER
Klebsiella pneumoniae ATCC 4352	9.0 X 10 ⁶ CFU/Carrier	A (60 Days Old)	3.6 Log ₁₀	5.63 Log ₁₀
		B	6.18 Log ₁₀	5.63 Log ₁₀
		C	6.18 Log ₁₀	5.63 Log ₁₀
Staphylococcus aureus ATCC #6538	1.5 X 10 ⁷ CFU/Carrier	A (60 Days Old)	1.44 Log ₁₀	3.85 Log ₁₀
		B	1.72 Log ₁₀	7.15 Log ₁₀
		C	1.46 Log ₁₀	7.15 Log ₁₀

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