

# MARK 11

**PH NEUTRAL DISINFECTANT • CLEANER  
MILDEWSTAT • FUNGICIDE  
SANITIZER (NONFOOD CONTACT SURFACES)  
VIRUCIDE\* • DEODORIZER**

## Efficacy Summary

**Mark 11 Disinfectant Cleaner** is a phosphate-free, pH neutral formulation designed to provide effective cleaning, deodorizing and disinfection in hospitals, nursing homes, schools, etc. where housekeeping is of prime importance in controlling the hazard of cross-contamination on treated surfaces.

**Mark 11 Disinfectant Cleaner** is a concentrated 2 ounce per gallon neutral hospital disinfectant that utilizes a highly efficacious 3rd generation quaternary.

**Mark 11 Disinfectant Cleaner** exhibits high soil and hard water tolerance with mixed-micelle soil removal performance that translates into real-world microbial pathogen control.

**Mark 11 Disinfectant Cleaner** cleans, shines, deodorizes and disinfects all hard non-porous surfaces listed on the label: floors, washable walls, sinks, countertops, toilet bowls, tables, chairs and telephones. It inhibits the growth of mold and mildew, leaving bathrooms and kitchens clean and fresh smelling.

### Efficacy For Mark 11 Disinfectant Cleaner

#### Hospital Disinfection (at 2 ounces 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 200 ppm hard water with a 10 minute contact time.

(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>Acinetobacter anitratus</i>	ATCC #49137	1.2 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Acinetobacter baumannii</i>	ATCC #19606	5.2 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Acinetobacter calcoaceticus</i>	ATCC #51432	9.0 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Campylobacter jejuni</i>	ATCC #29428	1.5 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Enterococcus faecalis</i>		8.3 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Enterococcus faecalis</i> Gentamycin Resistant	ATCC # 49532	7.4 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Enterococcus faecalis</i> Vancomycin Resistant	ATCC #51299	9.7 X 10 <sup>6</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Enterococcus faecium</i> Vancomycin Resistant		1.8 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Escherichia coli</i>		4.4 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Escherichia coli</i> (Methicillin Resistant) Clinical Isolate		5.0 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Escherichia coli</i> (Oxacillin Resistant)		5.0 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Escherichia coli</i> strain 0157:H7		1.8 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Klebsiella pneumoniae</i>		3.6 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Klebsiella pneumoniae</i> (Methicillin Resistant)		1.6 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Listeria monocytogenes</i>		1.4 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Pseudomonas aeruginosa</i>	ATCC #15442	1.7 X 10 <sup>5</sup> CFU/Carrier	A (60 Days Old)	60	1/60
			B	60	1/60
			C	60	0/60
<i>Salmonella choleraesuis</i>	ATCC #10708	7.2 X 10 <sup>4</sup> CFU/Carrier	A (60 Days Old)	60	0/60
			B	60	0/60
			C	60	0/60
<i>Staphylococcus aureus</i>	ATCC #6538	4.4 X 10 <sup>5</sup> CFU/Carrier	A (60 Days Old)	60	0/60
			B	60	0/60
			C	60	0/60
<i>Salmonella typhi</i>		1.1 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Salmonella typhimurium</i>		3.5 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Serratia marcescens</i>		4.9 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Shigella dysenteriae</i>		4.3 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Shigella flexneri</i>		4.4 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Shigella sonnei</i>		6.1 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Staphylococcus aureus</i> Methicillin Resistant (MRSA)		9.2 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Staphylococcus aureus</i> Multiple Antibiotic Resistant Clinical Isolate		4.4 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Staphylococcus aureus</i> (Vancomycin Sensitive) Clinical Isolate		1.3 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Streptococcus pyogenes</i> B 10 0/10	ATCC #49399	1.8 X 10 <sup>5</sup> CFU/Carrier A	A	10	0/10
			B	10	0/10

#### Virucidal against: (at 2 ounces per gallon)

**Mark 11 Disinfectant Cleaner** was evaluated in the presence of 5% serum and 200 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.)

		DRIED VIRUS CONTROL	SAMPLE	RESULT	LOG REDUCTION
Avian influenza/Turkey/Wisconsin	ATCC VR-798	7.5 Log <sub>10</sub>	A	≤1.8 Log <sub>10</sub>	≥5.7 Log <sub>10</sub>
			B	≤1.8 Log <sub>10</sub>	≥5.7 Log <sub>10</sub>
Canine Coronavirus	ATCC VR-809	4.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
			B	≥1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
Canine Distemper	ATCC VR-128	4.8 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.3 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥3.3 Log <sub>10</sub>

Virucidal performance cont.		DRIED VIRUS CONTROL	SAMPLE	RESULT	LOG REDUCTION
Equine Arteritis virus	ATCC VR-796	5.75 Log <sub>10</sub>	A	≤0.5 Log <sub>10</sub>	≥5.25 Log <sub>10</sub>
			B	≤0.5 Log <sub>10</sub>	≥5.25 Log <sub>10</sub>
Hepatitis B Virus		4.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥3.5 Log <sub>10</sub>
			Confirmatory A	≤1.5 Log <sub>10</sub>	≥3.88 Log <sub>10</sub>
Hepatitis C Virus		7.85 Log <sub>10</sub>	A	≤1.64 Log <sub>10</sub>	≥6.21 Log <sub>10</sub>
			B	≤1.79 Log <sub>10</sub>	≥6.06 Log <sub>10</sub>
			Confirmatory B	≤1.66 Log <sub>10</sub>	≥6.72 Log <sub>10</sub>
Herpes Simplex Virus Type 1	ATCC VR-260	6.0 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥4.5 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥4.5 Log <sub>10</sub>
Herpes Simplex Virus Type 2	ATCC VR-734	5.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Human Coronavirus	ATCC VR-740	4.5 Log <sub>10</sub>	A	≤0.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
			B	≤0.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Human Immunodeficiency Virus type 1 (HIV 1) HTLV-III B		5.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Infectious Laryngotracheitis Virus (LT) Strain LT-IVAX		4.5 Log <sub>10</sub>	A	≤0.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
			B	≤0.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Infectious Bovine Rhinotracheitis virus (IBR)	ATCC VR-188	5.2 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.7 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥3.7 Log <sub>10</sub>
Infectious Bronchitis Virus Beaudette IB42		5.25 Log <sub>10</sub>	A	≤0.5 Log <sub>10</sub>	≥4.75 Log <sub>10</sub>
			B	≤0.5 Log <sub>10</sub>	≥4.75 Log <sub>10</sub>
Influenza A/PR virus	ATCC VR-95	5.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Newcastle disease virus		6.0 Log <sub>10</sub>	A	≤1.8 Log <sub>10</sub>	≥4.2 Log <sub>10</sub>
			B	≤1.8 Log <sub>10</sub>	≥4.2 Log <sub>10</sub>
Porcine Respiratory & Reproductive (PRRSV)		5.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Porcine Rotavirus	ATCC VR-893	4.5 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
Pseudorabies virus	ATCC VR-135	4.5 Log <sub>10</sub> A	A	≤1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
			B	≤1.5 Log <sub>10</sub>	≥3.0 Log <sub>10</sub>
Transmissible Gastroenteritis (TGE)	ATCC VR-742	5.7 Log <sub>10</sub>	A	≤2.5 Log <sub>10</sub>	≥3.2 Log <sub>10</sub>
			B	≤2.5 Log <sub>10</sub>	≥3.2 Log <sub>10</sub>

### Fungicidal against (at 2 ounces per gallon)

**Mark 11 Disinfectant Cleaner** was evaluated in the presence of 5% serum and 200 ppm hard water with a 10 minute contact time and found to be effective against the following fungi on hard nonporous environmental surfaces. (Testing is performed per the AOAC fungicidal method (DIS/TSS-6). Two separate lots are tested against Trichophyton mentagrophytes in a suspension test. Killing of all fungal spores in 10 minutes is required.)

		CARRIER POPULATION	SAMPLE	# CARRIERS	# POSITIVE
<i>Candida albicans</i>	ATCC #10231	1.4 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
			B	10	0/10
<i>Trichophyton mentagrophytes</i>	ATCC #9533	5.2 X 10 <sup>6</sup> CFU/Carrier	A	10	0/10
			B	10	0/10

### Mold and Mildew Control (at 2 ounces per gallon)

**Mark 11 Disinfectant Cleaner** controls 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.

		TILE NUMBER	UNTREATED AFTER 7 DAYS	SAMPLE A AFTER 7 DAYS	SAMPLE B AFTER 7 DAYS
<i>Aspergillus niger</i>	ATCC #6275	1	Growth 80%	No Growth 0%	No Growth 0%
		2	Growth 80%	No Growth 0%	No Growth 0%
		7	Growth 95%	No Growth 0%	No Growth 0%
		4	Growth 95%	No Growth 0%	No Growth 0%
		5	Growth 90%	No Growth 0%	No Growth 0%
		6	Growth 80%	No Growth 0%	No Growth 0%
		7	Growth 90%	No Growth 0%	No Growth 0%
		8	Growth 95%	No Growth 0%	No Growth 0%
		9	Growth 80%	No Growth 0%	No Growth 0%
		10	Growth 80%	No Growth 0%	No Growth 0%

### Non-Food Contact Surface Sanitizer

**Mark 11 Disinfectant Cleaner**, at 2 ounces per gallon of water, will 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 Log<sub>10</sub>) in the number of each test microorganism over the parallel control count within 5 minutes.)

		CARRIER POPULATION	SAMPLE	30 SECOND KILL	60 SECOND KILL
<i>Klebsiella pneumoniae</i>	ATCC 4352	4.58 Log <sub>10</sub>	A (60 Days Old)	3.80 Log <sub>10</sub> (60 Days Old)	3.52 Log <sub>10</sub> (60 Days Old)
			B	3.80 Log <sub>10</sub>	3.52 Log <sub>10</sub>
			C	3.80 Log <sub>10</sub>	3.52 Log <sub>10</sub>
<i>Staphylococcus aureus</i>	ATCC #6538	5.08 Log <sub>10</sub>	A (60 Days Old)	2.69 Log <sub>10</sub> (60 Days Old)	4.64 Log <sub>10</sub> (60 Days Old)
			B	3.76 Log <sub>10</sub>	4.64 Log <sub>10</sub>
			C	4.64 Log <sub>10</sub>	4.64 Log <sub>10</sub>



**STEARNS PACKAGING CORPORATION**  
 4200 Sycamore Avenue (53714) • P.O. Box 3216, Madison, Wisconsin 53704-0216  
 Telephone: (800) 655-5008 • (608) 246-5150 • Fax: (608) 246-5149  
 E-mail: stearns@stearnspkg.com • http://www.stearnspkg.com