



DSQ 10

EPA NUMBER: 10324-63-42403

USES

Disinfectant, Sanitizer, Fungicide, Mildewstat, Virucide*, For Hospitals, Nursing Homes, Institutional, Schools, Institutional Kitchens, Hotels & Motels, Food Handling and Processing Areas.

USE DILUTIONS

		Quat Active	Hard Water
Hospital Disinfectant	4 oz. per 5 gal of water	625 ppm	
Non-Medical Disinfectant	3 oz. per 5 gal of water	469 ppm	
Virucidal	4 oz. per 5 gal of water	625 ppm	
Sanitation Non-Food Contact	1 oz. per 4 gal of water	200 ppm	
Sanitation Food Contact	1- 2 oz. per 4 gallons	200 - 400 ppm	500 ppm

EFFICACY DATA

Hospital Disinfection

This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum at 4 ounces of this product per 5 gallons of water (625 ppm active) Treated surfaces must remain wet for 10 minutes

(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 enterica and Staphylococcus aureus. Killing of 59 out of 60 carriers is required (total carriers = 540).)

Organism	Carrier Population	Sample	# Carriers	# Positive
<i>Pseudomonas aeruginosa</i> ATCC #15442	1.6 X 10 ⁷ CFU/Carrier	A (60 Days Old)	60	1/60
	1.0 X 10 ⁶ CFU/Carrier	B	60	0/60
	9.0 X 10 ⁶ CFU/Carrier	C	60	0/60
<i>Salmonella enterica</i> ATCC #10708	5.6 X 10 ⁴ CFU/Carrier	A (60 Days Old)	60	0/60
	5.4 X 10 ⁴ CFU/Carrier	B	60	1/60
	4.0 X 10 ⁴ CFU/Carrier	C	60	1/60
<i>Staphylococcus aureus</i> ATCC #6538	1.6 X 10 ⁶ CFU/Carrier	A (60 Days Old)	60	1/60
	1.4 X 10 ⁶ CFU/Carrier	B	60	0/60
	1.4 X 10 ⁶ CFU/Carrier	C	60	1/60

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).)

Organism	Carrier Population	Sample	# Carriers	# Positive
<i>Escherichia coli</i> 0157:H7 ATCC 35150	1.4 X 10 ⁵ CFU/Carrier	A	20	0/20
		B	20	0/20
<i>Listeria monocytogenes</i> ATCC 984	2.4 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Methicillin Resistant) (MRSA) ATCC 33591	4.2 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Community Associated Methicillin Resistant) (CA-MRSA) (NRS 123) (Genotype USA400) ATCC 33591	1.44 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Yersinia enterocolitica</i> ATCC 23715	4.6 X 10 ⁴ CFU/Carrier	A	20	0/20
		B	20	0/20

General Disinfection

This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum at 3 ounces of this product to 5 gallons of water (469 ppm active) Treated surfaces must remain wet for 10 minutes

(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 *Salmonella enterica* and *Staphylococcus aureus*. Killing of 59 out of 60 carriers is required (total carriers = 360).)

Organism	Dried Virus Control	Sample	Result	Log Reduction
<i>Salmonella enterica</i> ATCC #10708	5.6 X 10 ⁴ CFU/Carrier	A (60 Days Old)	60	0/60
	5.4 X 10 ⁴ CFU/Carrier	B	60	1/60
	4.0 X 10 ⁴ CFU/Carrier	C	60	1/60
<i>Staphylococcus aureus</i> ATCC #6538	1.6 X 10 ⁶ CFU/Carrier	A (60 Days Old)	60	1/60
	1.4 X 10 ⁶ CFU/Carrier	B	60	0/60
	1.4 X 10 ⁶ CFU/Carrier	C	60	1/60

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).)

Organism	Carrier Population	Sample	# Carriers	# Positive
<i>Escherichia coli</i> 0157:H7 ATCC 35150	1.4 X 10 ⁵ CFU/Carrier	A	20	0/20
		B	20	0/20
<i>Listeria monocytogenes</i> ATCC 984	2.4 X 10 ⁴ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Staphylococcus aureus</i> (Methicillin Resistant) (MRSA) ATCC 33591	4.2 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Yersinia enterocolitica</i> ATCC 23715	4.6 X 10 ⁴ CFU/Carrier	A	20	0/20
		B	20	0/20

Virucidal against

This product was evaluated at 4 ounces per 5 gallons use level (625 ppm quat active), in the presence of 5% serum 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 for Canada))

Organism	Carrier Population	Sample	# Carriers	# Positive
Avian influenza A H5N1 virus	4.75 Log ₁₀	A	≤0.5 Log ₁₀	≥4.25 Log ₁₀
		B	≤0.5 Log ₁₀	≥4.25 Log ₁₀
Avian influenza /Turkey/Wisconsin ATCC VR-798	7.5 Log ₁₀	A	≤1.8 Log ₁₀	≥5.7 Log ₁₀
		B	≤1.8 Log ₁₀	≥5.7 Log ₁₀
Hepatitis B Virus	4.5 Log ₁₀	A	≤1.5 Log ₁₀	≥3.0 Log ₁₀
	5.0 Log ₁₀	B	≤1.5 Log ₁₀	≥3.5 Log ₁₀
	5.38 Log ₁₀	Confirmatory A	≤1.5 Log ₁₀	≥3.88 Log ₁₀
Hepatitis C Virus ATCC CCL-22	7.14 Log ₁₀	A	≤1.08 Log ₁₀	≥6.06 Log ₁₀
	7.14 Log ₁₀	B	≤1.35 Log ₁₀	≥5.79 Log ₁₀
	7.14 Log ₁₀	Confirmatory B	≤1.08 Log ₁₀	≥6.06 Log ₁₀
Herpes Simplex Type 1 ATCC VR-260	6.8 Log ₁₀	A	≤1.0 Log ₁₀	≥5.8 Log ₁₀
		B	≤1.0 Log ₁₀	≥5.8 Log ₁₀
Herpes Simplex Type 2 ATCC VR-734	5.5 Log ₁₀	A	≤1.5 Log ₁₀	≥4.0 Log ₁₀
		B	≤1.5 Log ₁₀	≥4.0 Log ₁₀
Human Coronavirus ATCC VR-740	4.5 Log ₁₀	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
		B	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Human Immunodeficiency Virus type 1 (HIV 1) HTLV-III _b	5.5 Log ₁₀	A	≤1.5 Log ₁₀	≥4.0 Log ₁₀
		B	≤1.5 Log ₁₀	≥4.0 Log ₁₀
Influenza A (H1N1) virus ATCC VR-1469	4.5 Log ₁₀	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
		B	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Influenza A2/Japan ATCC VR-100	7.5 Log ₁₀	A	≤1.8 Log ₁₀	≥5.7 Log ₁₀
		B	≤1.8 Log ₁₀	≥5.7 Log ₁₀
Vaccinia virus ATCC VR-742	6.8 Log ₁₀	A	≤1.8 Log ₁₀	≥5.0 Log ₁₀
		B	≤1.8 Log ₁₀	≥5.0 Log ₁₀

Mold and Mildew Control

Use this product at 4 ounces per gallon 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.

Organism	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%

Food Contact Sanitizer (No Rinse)

At 0.25 ounces per gallon (1 ounce per 4 gallons) (200 ppm) this product is an effective food-contact surface sanitizer eliminating 99.999% of the of the following bacteria in 60 seconds in 500 ppm hard water (calculated as CaCO3) according to the AOAC Germicidal and Detergent Sanitizing Action of Disinfectants test.

Testing is performed per the AOAC method (AOAC Germicidal and Detergent Sanitizers) on 3 separate lots, one of which must be > 60 days old, against both Escherichia coli and Staphylococcus aureus. Acceptable results must demonstrate a 99.999% reduction in the number of test microorganisms within 30 seconds.

Organism	Dried Virus Control	Sample	30 Sec. Kill	60 Sec. Kill
Escherichia coli ATCC #11229	7.47 Log ₁₀	A	7.47 Log ₁₀	7.47 Log ₁₀
		B	7.47 Log ₁₀	7.47 Log ₁₀
		C	7.47 Log ₁₀	7.47 Log ₁₀
Escherichia coli O157:H7 ATCC #43888	8.04 Log ₁₀	A	5.15 Log ₁₀	>5.78 Log ₁₀
		B	5.07 Log ₁₀	>5.65 Log ₁₀
Listeria monocytogenes ATCC #984	8.22 Log ₁₀	A	6.42 Log ₁₀	>7.30 Log ₁₀
		B	7.32 Log ₁₀	7.43 Log ₁₀
Staphylococcus aureus ATCC #6538	7.0 Log ₁₀	A	7.0 Log ₁₀	7.0 Log ₁₀
		B	7.0 Log ₁₀	7.0 Log ₁₀
		C	7.0 Log ₁₀	7.0 Log ₁₀
Yersinia enterocolitica ATCC #23715	7.88 Log ₁₀	A	>7.88 Log ₁₀	>7.88 Log ₁₀
		B	>7.88 Log ₁₀	>7.88 Log ₁₀

The information contained herein was supplied to Seatex, LTD by Mason Chemical Company located in Arlington Heights, IL and is based on the Mason Chemical Company research and that of others and is believed to be correct.

Non-Food Contact Surface Sanitizer

Add ¼ 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.

Organism	Dried Virus Control	Sample	30 Sec. Kill	60 Sec. Kill
Staphylococcus aureus ATCC #6538	6.55 Log ₁₀	A	>5.03 Log ₁₀	>99.9
		B	>5.15 Log ₁₀	>99.9
		C	>4.90 Log ₁₀	>99.9

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