

HYPERSAN Food Contact Disinfectant & Sanitizer



Efficacy Data

EPA Reg. # 10324-63-85023

Efficacy: 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	Carrier Population	Sample	# Carriers	# Positive
<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>Campylobacter jejuni</i> ATCC 29428	5.0 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli 0157:H7</i> 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>Proteus mirabilis Clinical Isolate</i>	1.1 X 10 ⁵ CFU/Carrier	A	20	0/20
		B	20	0/20
<i>Staphylococcus aureus (Methicillin Resistant)</i> (MRSA) ATCC 33591	4.2 X 10 ⁵ CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Yersinia enterocolitica</i> ATCC 23715	2.4 X 10 ⁵ CFU/Carrier	A	20	0/20
		B	20	0/20

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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	Carrier Population	Sample	30 Second Kill	60 Second Kill
<i>Escherichia coli</i> 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
<i>Staphylococcus aureus</i> 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
<i>Aeromonas hydrophila</i> ATCC 23213	8.04 Log ₁₀	A	>5.53 Log ₁₀	-
		B	>6.09 Log ₁₀	-
<i>Campylobacter jejuni</i> ATCC #29428	7.27 Log ₁₀	A	>7.27 Log ₁₀	>7.27 Log ₁₀
		B	>7.27 Log ₁₀	>7.27 Log ₁₀
<i>Enterococcus faecalis Vancomycin Resistant (VRE)</i> ATCC 51299	8.00 Log ₁₀	A	6.10 Log ₁₀	-
		B	6.15 Log ₁₀	-
<i>Enterobacter sakazakii</i> ATCC 29544	7.93 Log ₁₀	A	>5.37 Log ₁₀	-
		B	5.16 Log ₁₀	-
<i>Escherichia coli O111:H8</i> ATCC BAA-184	7.95 Log ₁₀	A	>6.96 Log ₁₀	-
		B	>6.96 Log ₁₀	-
<i>Escherichia coli O157:H7</i> ATCC #43888	8.04 Log ₁₀	A	5.15 Log ₁₀	>5.78 Log ₁₀
		B	5.07 Log ₁₀	>5.65 Log ₁₀
<i>Listeria monocytogenes</i> ATCC #984	8.22 Log ₁₀	A	6.42 Log ₁₀	>7.30 Log ₁₀
		B	7.32 Log ₁₀	7.43 Log ₁₀
<i>Salmonella typhi</i> ATCC 6539	8.00 Log ₁₀	A	6.70 Log ₁₀	-
		B	6.41 Log ₁₀	-
<i>Shigella dysenteriae</i> ATCC #9361	7.87 Log ₁₀	A	>7.87 Log ₁₀	>7.87 Log ₁₀
		B	>7.87 Log ₁₀	>7.87 Log ₁₀

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Organism	Carrier Population	Sample	30 Second Kill	60 Second Kill
<i>Streptococcus pyogenes</i> ATCC 12344	7.90 Log ₁₀	A	>6.60 Log ₁₀	-
		B	>6.90 Log ₁₀	-
<i>Yersinia enterocolitica</i> ATCC #23715	7.88 Log ₁₀	A	>7.88 Log ₁₀	>7.88 Log ₁₀
		B	>7.88 Log ₁₀	>7.88 Log ₁₀

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	Carrier Population	Sample	60 Second Kill cfu/Carrier	Percent Kill
<i>Enterobacter aerogenes</i> ATCC 13048	5.43 Log ₁₀	A (60 Days Old)	>4.03 Log ₁₀	>99.9
		B	>3.09 Log ₁₀	>99.9
	7.07 Log ₁₀	C	>3.93 Log ₁₀	>99.9
<i>Staphylococcus aureus</i> ATCC #6538	6.55 Log ₁₀	A (60 Days Old)	>5.03 Log ₁₀	>99.9
		B	>5.15 Log ₁₀	>99.9
		C	>4.90 Log ₁₀	>99.9