



Disinfectant 275 & 525

Product Efficacy & Safety Test Summary

TECHNICAL SUMMARY

NaturaWays Disinfectant 275 | NaturaWays Disinfectant 525

PRODUCT EFFICACY

NaturaWays Disinfectant 275 and NaturaWays Disinfectant 525 are Hypochlorous Acid solutions generated electrochemically from Sodium Chloride. Both products are EPA registered antimicrobial pesticides bearing a Hospital and a General/Broad Spectrum Disinfectant claims per FIFRA Section 3(c)(5). Using established ASTM standards, AOAC methods and EPA guidelines, a series of studies have been conducted to characterize the solutions’ abilities to disinfect and reduce microorganisms through a one-step disinfecting mechanism. These studies are further discussed below.

1. AOAC Use-Dilution Method (AOAC 955.14, 955.15, 964.02)

The AOAC Use-Dilution Test is considered a "high-level" test for disinfectants, i.e., an antimicrobial solution must have appreciable biocidal activity on a relatively short time frame, < 10 minutes, to pass the test.

A culture of the challenge microorganism, listed in Table 1 below, is amended with a 5% organic soil load to mimic a “dirty” surface to challenge test article’s one-step cleaning and disinfecting efficacy. The bacteria is then cultured for 48 hours and the 48-hour is dried onto a number of small, cylindrical, and stainless steel test surfaces test surfaces called penicylinders to create a contaminated surface. At least 10 contaminated surfaces are prepared.

Using a wire hook, each dry, contaminated test surface is then transferred individually to a test tube filled with the test article (NaturaWays Disinfectant 275 or 525) for the exposure (contact) time of 10 minutes at room temperature (20 – 25°C). After the exposure time has elapsed, the treated test surfaces are transferred to test tubes containing a liquid growth medium that will neutralize the action of the disinfectant. The treated test surfaces are then incubated in the neutralizing growth medium for 48 hours to recover the microorganism. After incubation in the neutralization media, the number of test tubes showing recovery of the challenge microorganism is recorded.

TABLE 1. *NaturaWays Disinfectant evaluated against Gram+ and Gram- Bacteria in the presence of 5% Organic Soil Load*

Exposure Time: 10 minutes			
Sample Dilution: Ready to Use (RTU)			
Test Organism	Strain	Number of Positive Carriers per Number Tested	Test Result
Pseudomonas aeruginosa	ATCC 15442	0 / 10	Pass
Staphylococcus aureus	ATCC 6538	0 / 10	Pass
Staphylococcus aureus (HA- MRSA)	ATCC 33591	0 / 10	Pass
Salmonella enterica	ATCC 10708	0 / 60	Pass
Escherichia coli (NDM-1)	ATCC BAA-2469	0 / 10	Pass
Vancomycin Resistant Enterococcus faecalis (VRE)	ATCC 700221	0 / 10	Pass

Conclusion: Under the condition of this study, in the presence of 5% organic soil load, NaturaWays Disinfectant, ready to use, demonstrated efficacy against the above listed microorganisms following a 10-minute exposure time at room temperature.

2. AOAC Tuberculocidal Activity of Disinfectants Test Method

The AOAC Tuberculocidal Activity of Disinfectants Test is considered a "high-level" test for disinfectants, i.e., an antimicrobial solution must have appreciable biocidal activity on a relatively short (<10 minutes) time frame to pass the test.

A culture of the *Mycobacterium bovis BCG*, an EPA recommended surrogate of *Mycobacterium tuberculosis*, is amended with a 5% fetal bovine serum to mimic a “dirty” surface to challenge test article’s one-step cleaning and disinfecting efficacy. The bacteria are then cultured for 21 days, and dried onto a number of penicylinders to create a test surface. At least 10 contaminated test surfaces are created.

Each dry, contaminated test surface is then transferred, individually, to a test tube filled with the test article for the exposure (contact) time of 10 minutes near room temperature. After the contact time has elapsed, the treated test surfaces are transferred to test tubes containing a liquid medium that has been amended with chemical agents to immediately neutralize the action of the disinfectant. Immediately after transfer from the disinfectant into the neutralizer, the treated test surfaces are transferred into bacterial growth medium and are incubated for 60 days. After the 60-day incubation, the number of tubes showing growth of *Mycobacterium bovis BCG* is recorded.

TABLE 2. *NaturaWays Disinfectant evaluated against Mycobacterium bovis BCG in the presence of 5% Fetal Bovine Serum*

Exposure Time: 10 minutes		
Sample Dilution: Ready to Use (RTU)		
Challenge Suspension Initial Population (CFU/mL)	Number of Positive Carriers per Number Tested (All Media Types)	Test Result
2.850 x 10 ⁷	0 / 10	Pass
2.850 x 10 ⁷	0 / 10	Pass

Conclusion: Under the condition of this study, in the presence of 5% organic soil load, NaturaWays Disinfectant, ready to use, met the required performance criteria versus *Mycobacterium bovis BCG* following a 10-minute exposure time at room temperature.

3. Viricidal Hard Surface Disinfection Evaluation using ASTM E1053 Method

This test is performed to verify the performance capability of a test substance as a viricidal agent.

NaturaWays Disinfectant has been tested against four different viruses, HIV-1, H1N1, Rhinovirus 16 and Murine Norovirus. The test virus, HIV-1, H1N1 or Rhinovirus 16, is loaded with a 5% organic soil load to mimic a “dirty” surface to challenge test article’s one-step cleaning and disinfecting efficacy. An inoculum of the test virus is spread over the carrier surface and allowed to dry. The

test virus is then inoculated onto a hard, nonporous surface (100 x 15 mm glass Petri dish) to create a dried film carrier. Two dried film carriers are prepared per lot of test substance for surrogate viruses and one dried film carrier for non-surrogate viruses.

The dried virus films are treated with the test article for the exposure (contact) time of 10 minutes near room temperature. At the close of the contact time, the test carrier films are neutralized by addition of a neutralizer solution followed by scraping of the carrier surface using a cell scraper. The test suspensions are then plated, cultured, and observed for virus presence or absence.

TABLE 3.1. *NaturaWays Disinfectant evaluated against HIV-1 virus in the presence of 5% Fetal Bovine Serum*

Virus / Strain: HIV-1/Mn (ZeptoMetrix #0810027CF)
Exposure Time: 10 minutes
Sample Dilution: Ready to Use (RTU)

Dilution	Virus Control		After Exposure to Test Substance – Lot #1		After Exposure to Test Substance – Lot #2	
	Carrier 1	Carrier 2	Carrier 1	Carrier 2	Carrier 1	Carrier 2
10 ⁻²	Not Tested		0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
10 ⁻³	++++	++++	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
10 ⁻⁴	++++	++++	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
10 ⁻⁵	++++	++++	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
10 ⁻⁶	0 0 0 +	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
10 ⁻⁷	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
TCID ₅₀ (log 10)	5.750	5.500	≤ 1.50	≤ 1.50	≤ 1.50	≤ 1.50
Average TCID ₅₀ (log 10)	5.625		≤ 1.50		≤ 1.50	
Log 10 Reduction	N/A		≥ 4.125	≥ 4.125	≥ 4.125	≥ 4.125
Average Log 10 Reduction			≥ 4.125		≥ 4.125	
Percent Reduction			> 99.99	> 99.99	> 99.99	> 99.99
Average % Reduction			> 99.99		> 99.99	

Dilution refers to the fold of dilution from virus inoculum

(+) = Positive for the presence of test virus

(0) = No test virus recovered

“≤ “ indicates a viral titer at or below the limit of detection for this assay

TABLE 3.2. *NaturaWays Disinfectant evaluated against Swine Influenza A (H1N1) virus in the presence of 5% Fetal Bovine Serum – Virus Controls and Test Results*

Virus / Strain: Swine Influenza A (H1N1) Virus, ATCC VR-333
 Strain A / Swine / Iowa / 15 / 30
Exposure Time: 10 minutes
Sample Dilution: Ready to Use (RTU)

Dilution	Input Virus Control	Dried Virus Control	After Exposure to Test Substance
Cell Control	0 0	0 0 0 0	0 0 0 0
10 ⁻¹	++	++++	0 0 0 0
10 ⁻²	++	++++	0 0 0 0
10 ⁻³	++	++++	0 0 0 0
10 ⁻⁴	++	++++	0 0 0 0
10 ⁻⁵	++	++++	0 0 0 0
10 ⁻⁶	0 0	+ 0 + 0	0 0 0 0
10 ⁻⁷	0 0	0 0 0 0	0 0 0 0
10 ⁻⁸	0 0	0 0 0 0	0 0 0 0
TCID ₅₀ (log 10) / 100uL	6.50	6.00	≤ 0.50
Log 10 Reduction	N/A		≥ 5.50

TABLE 3.3. *NaturaWays Disinfectant evaluated against Rhinovirus 16 (common cold agent) in the presence of 5% Fetal Bovine Serum – Virus Controls and Test Results*

Virus / Strain: Rhinovirus 16 (Rhino 16), ATCC VR-283
Exposure Time: 10 minutes
Sample Dilution: Ready to Use (RTU)

Test Substance	Log 10 Infectious Units per Carrier	Log 10 Reduction after Exposure	Percent Reduction after Exposure
Control	5.80	N/A	N/A
After Exposure to Test Substance	≤ 1.80	≥ 4.00	≥ 99.99%

Viral stock enumeration demonstrated a titer of 7.00 log 10 per 0.1 mL.

TABLE 3.4. *NaturaWays Disinfectant evaluated against Murine Norovirus (without 5% Fetal Bovine Serum) – Virus Controls and Test Results*

Virus / Strain: Murine Norovirus, Strain MNV-G
Exposure Time: 10 minutes
Sample Dilution: Ready to Use (RTU)

Dilution	Virus Stock Titer Control	Plate Recovery Control	After Exposure to Test Substance – Lot #1	After Exposure to Test Substance – Lot #2
10 ⁻²	Not Tested	Not Tested	0 0 0 0	0 0 0 0
10 ⁻³	Not Tested	++++	0 0 0 0	0 0 0 0
10 ⁻⁴	++++	++++	0 0 0 0	0 0 0 0
10 ⁻⁵	++++	++++	0 0 0 0	0 0 0 0
10 ⁻⁶	++++	++++	0 0 0 0	0 0 0 0
10 ⁻⁷	0 0 ++	0 0 0 0	0 0 0 0	0 0 0 0
10 ⁻⁸	0 0 0 0	0 0 0 0	Not Tested	Not Tested
10 ⁻⁹	0 0 0 0	Not Tested	Not Tested	Not Tested
TCID ₅₀ (log 10) / mL	7.00	6.50	≤ 1.50	≤ 1.50
TCID ₅₀ (log 10) per Carrier (0.40mL Challenge)	N/A	6.10	≤ 1.10	≤ 1.10
Log 10 Reduction	N/A		≥ 5.00	≥ 5.00

Conclusion: Under the condition of the above studies, in the presence of 5% organic soil load, NaturaWays Disinfectant, ready to use, demonstrated at least a 4-log reduction (> 99.99%) of H1N1 Virus and Rhinovirus 16, and at least a 5-log reduction of the HIV-1 Virus, following a 10-minute exposure time at room temperature. For Murine Norovirus, NaturaWays Disinfectant, ready to use, demonstrated at least a 5-log reduction of the test virus, in the absence of an organic soil load. NaturaWays Disinfectant was able to meet the EPA success criteria for viricidal efficacy of a disinfectant, i.e. a minimum of 4-log reduction of the test virus.

TABLE 4 Efficacy Test Summary – NaturaWays Disinfectant 275

Test Product	Study Type	Test Method	Challenge Organisms	Organism Type	Results	Lab
NaturaWays Disinfectant 275 (Tested at 10ppm FAC)	Antimicrobial Effectiveness Study using a Time Kill Assay	USP<51> Guideline	<i>Staphylococcus aureus</i> , <i>Pseudomonas aeruginosa</i> , <i>Escherichia coli</i> , <i>Serratia marcescens</i> , <i>Klebsiella pneumoniae</i> , <i>Proteus vulgaris</i> , <i>Acinetobacter baumannii</i>	All Gram-Negative Bacteria except for <i>Staphylococcus aureus</i> , which is Gram-Positive	Log reduction in 15 s : S. aureus: > 5.25 P. aeruginosa: > 5.00 E. Coli: > 4.85 S. marcescens: > 4.88 K. pneumoniae: > 4.98 P. vulgaris: > 4.98 A. baumannii: > 5.12	NAMSA
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Guideline E2315-03	<i>Acinetobacter baumannii</i> - Multi Drug Resistant, <i>Enterococcus faecium</i> - Multi Drug Resistant, Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA), Vancomycin Resistant <i>Enterococcus faecalis</i> (VRE)	Gram-Negative Bacteria Gram-Positive Bacteria Gram-Positive Bacteria Gram-Positive Bacteria	Log reduction in 15 s : A. baumannii: > 5.45 E. faecium: > 5.30 MRSA: > 5.36 VRE: > 5.56	ATS Lab
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Guideline E2315-03	<i>Bacteroides fragilis</i> , <i>Haemmophilus influenzae</i> , <i>Streptococcus pyogenes</i>	Gram-Negative Bacteria Gram-Negative Bacteria Gram-Positive Bacteria	Log reduction in 15 s : B. fragilis: > 5.89 H. influenzae: > 4.44 S. pyogenes: > 5.79	ATS Lab
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Guideline E2315-03	<i>Staphylococcus epidermidis</i> , <i>Staphylococcus haemolyticus</i> , <i>Staphylococcus hominis</i> , <i>Staphylococcus saprophyticus</i>	All Gram-Positive Bacteria and of the <i>Staphylococcus</i> genus	Log reduction in 15 s : S. epidermidis: > 5.08 S. haemolyticus: > 5.01 S. hominis: > 5.32 S. saprophyticus: > 5.15	ATS Lab
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Guideline E2315-03	<i>Enterobacter aerogenes</i> , <i>Escherichia coli</i> , <i>Klebsiella pneumoniae</i> , <i>Micrococcus luteus</i> , <i>Proteus mirabilis</i> , <i>Serratia marcescens</i>	All Gram-Negative Bacteria except for <i>Micrococcus luteus</i> , which is Gram-Positive to Gram-Variable	Log reduction in 15 s : E. aerogenes: > 5.88 E. coli: > 5.61 K. pneumoniae: > 5.42 M. luteus: > 4.46 P. mirabilis: > 5.92 S. marcescens: > 5.43	ATS Lab
NaturaWays Disinfectant 275	Testing Disinfectant against <i>Pseudomonas aeruginosa</i> and <i>Staphylococcus aureus</i>	AOAC Official Method, 964.02, 955.15, Use-Dilution Method	<i>Staphylococcus aureus</i> , <i>Pseudomonas aeruginosa</i>	Gram-Positive Bacteria Gram-Negative Bacteria	Killed 10 out of 10 treated carriers in 5% organic soil load in 10 minutes	Bioscience
NaturaWays Disinfectant 275	Testing Disinfectants against <i>Salmonella enterica</i>	AOAC Official Method, 955.14, Use-Dilution Method	<i>Salmonella enterica</i>	Gram-Negative Bacteria	Killed 10 out of 10 treated carriers in 5% organic soil load in 10 minutes	ATS Lab
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Guideline E2315-03	<i>Mycobacterium bovis</i> - BCG	Bacteria that causes Tuberculosis in humans	> 5.21 log reduction in 60 s	ATS Lab

TABLE 4. Efficacy Test Summary – NaturaWays Disinfectant 275 (Cont.)

NaturaWays Disinfectant 275	Assessment of Microbicidal Activity against Viruses in Suspension	ASTM Guideline E1052, E1482	Hepatitis B Virus	Virus	> 5.25 log reduction in 30 s	ATS Lab
NaturaWays Disinfectant 275	Assessment of Microbicidal Activity against Viruses in Suspension	ASTM Guideline E1052, E1482	Rhinovirus type 37	Virus	> 3.75 log reduction in 60 s	ATS Lab
NaturaWays Disinfectant 275	Assessment of Microbicidal Activity against Viruses in Suspension	ASTM Guideline E1052, E1482	Swine Influenza A (H1N1) Virus	Virus	> 5.50 log reduction in 5% organic soil load in 10 minutes	ATS Lab
NaturaWays Disinfectant 275	Assessment of Microbicidal Activity against Viruses in Suspension	ASTM Guideline E1052	Murine Norovirus	Virus	> 5.00 log reduction in 10 minutes	Microbac Lab
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	USP<51> Guideline	<i>Aspergillus brasiliensis</i>	Fungus	Log reduction in 15 s A. brasiliensis: = 4.11	NAMSA
NaturaWays Disinfectant 275 (Tested at 10ppm FAC)	Antimicrobial Effectiveness Study using a Time Kill Assay	USP<51> Guideline	<i>Candida albicans</i>	Fungus	> 4.38 log reduction in 15 s	NAMSA
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Guideline E2315-03	<i>Candida albicans</i>	Fungus	> 5.31 log reduction in 15 s	ATS Lab
NaturaWays Disinfectant 275	Antimicrobial Effectiveness Study using a Time Kill Assay	ASTM Standard Guideline E2315-03, E2839-11	<i>Clostridium difficile</i> - spore form	Spore	> 5.35 log reduction in 30 s	ATS Lab

TABLE 5. Efficacy Test Summary – NaturaWays Disinfectant 525

Test Product	Study Type	Test Method	Challenge Organisms	Organism Type	Results	Lab
NaturaWays Disinfectant 525	Testing Disinfectant against <i>Pseudomonas aeruginos</i> and <i>Staphylococcus aureus</i>	AOAC Official Method, 964.02, 955.15, Use-Dilution Method	<i>Staphylococcus aureus</i> , <i>Pseudomonas aeruginosa</i>	Gram-Positive Bacteria Gram-Negative Bacteria	Killed 10 out of 10 treated carriers in 5% organic soil load in 10 minutes	Bioscience
NaturaWays Disinfectant 525	Testing Disinfectant against Hospital Acquired Methicillin Resistant <i>Staphylococcus aureus</i> (HA-MRSA)	AOAC Official Method, 964.02, Use-Dilution Method	Hospital Acquired Methicillin Resistant <i>Staphylococcus aureus</i> (HA-MRSA)	Gram-Positive Bacteria	Killed 10 out of 10 treated carriers in 5% organic soil load in 10 minutes	ATS Lab
NaturaWays Disinfectant 525	Testing Disinfectant against <i>Salmonella enterica</i>	AOAC Official Method, 955.14, Use-Dilution Method	<i>Salmonella enterica</i>	Gram-Negative Bacteria	Killed 60 out of 60 treated carriers in 5% organic soil load in 10 minutes	ATS Lab
NaturaWays Disinfectant 525	Testing Disinfectant against NDM-1 <i>E. Coli</i> and VRE	AOAC Official Method, 955.15, Use-Dilution Method	<i>NDM-1 Escherichia coli</i> <i>Vancomycin Resistant Enterococcus faecalis</i> (VRE)	Gram-Negative Bacteria Gram-Positive Bacteria	Killed 10 out of 10 treated carriers in 5% organic soil load in 10 minutes	
NaturaWays Disinfectant 525	AOAC Tuberculocidal Activity of Disinfectants	AOAC Official Method, 965.12, 960.09	<i>Mycobacterium bovis</i> - BCG	Bacteria that causes Tuberculosis in humans	Killed 10 out of 10 treated carriers in 5% organic soil load in 10 minutes	Bioscience
NaturaWays Disinfectant 525	Assessment of Viricidal Activity against Viruses in Suspension	ASTM Guideline E1053, E1482	Swine Influenza A (H1N1) Virus	Virus	> 5.50 log reduction in 5% organic soil load in 10 minutes	ATS Lab
NaturaWays Disinfectant 525	Assessment of Viricidal Activity against Viruses in Suspension	ASTM Guideline E1053	Human Immunodeficiency Virus Type 1 (HIV-1)	Virus	> 4.125 log reduction in 5% organic soil load in 10 minutes	Bioscience
NaturaWays Disinfectant 525	Assessment of Viricidal Activity against Viruses in Suspension	ASTM Guideline E1053	Rhinovirus 16 (Common Cold Agent)	Virus	> 4.000 log reduction in 5% organic soil load in 10 minutes	ATL Lab
NaturaWays Disinfectant 525	Standard Quantitative Disk Carrier Test Method for Determining Sporicidal Activities	ASTM Standard Guideline E2197-11, Standard Quantitative Disk Carrier Test Method	<i>Clostridium difficile</i> - spore form	Spore	> 5.96 log reduction in 10 minutes in the absence of organic soil load	ATS Lab

PRODUCT SAFETY

A nonclinical toxicology investigation has been done on the above products as following. The NaturaWays Disinfectant products contain Hypochlorous Acid as the active ingredients. The only inactive ingredient in the product solution is residual Sodium Chloride from the electrolysis process. Sodium Chloride (CAS RN 8028-77-1) is listed as an inactive ingredient in FDA CDER database for use in approved drug products. Moreover, the Sodium Chloride used in NaturaWays electrolysis process is NSF certified. Therefore, the presence of Sodium Chloride in the NaturaWays Disinfectant products does not present a safety concern.

A series of non-clinical toxicology testing has been done on the product solutions to assess their potential local and systemic toxicity. The toxicology studies were conducted at NAMSA and IIT Research Institute (IITRI), both of which being AALAC approved facilities. All toxicology studies conducted were in compliance with Good Laboratory Practice (GLP) regulations.

The GLP toxicology testing program was based on ISO-10993 requirements on biocompatibility testing for a surface device with contact with breached or compromised surface. These studies, together with the study results, are listed in Table 4.

TABLE 6. Nonclinical Toxicity Testing Summary

Study Type	Test Species	Route	Result	Testing Facility
In vitro Cytotoxicity	L-929 Mouse Fibroblast Cells	In vitro	Not Cytotoxic / Meet USP Requirement	NAMSA
Repeated-Dose Toxicity	Rats	Dermal	No Local or Systemic Toxicity on Intact or Wounded skin	NAMSA
Maximization Sensitization	Guinea Pigs	Dermal	Not a Sensitizer (Does not induce allergic responses)	NAMSA
Acute Toxicity	Rats	Oral	Non-Toxic	NAMSA
Acute Toxicity	Rats	Inhalation / Nose	Non-Toxic	IIT RI
Skin Irritation	Rabbits	Dermal	Not a Skin Irritant on Intact or Abraded Skin	NAMSA
Eye Irritation	Rabbits	Ocular	Not an Eye Irritant	NAMSA

Conclusion

Exposure to L-929 cells *in vitro* to the product solutions produced a slight cell lysis, which was not considered cytotoxic per USP requirement. Product solutions were also not considered a primary dermal or ocular irritant and did not show sensitization potential in the dermal and ocular irritation studies. Product was considered non-toxic in both the acute oral toxicity study and the single dose inhalation study when tested at the maximal feasible concentration. In a 28-day repeated dose toxicity study, topical application of the product to intact and wounded skin areas did not result in any treatment-related skin irritation or wound healing issues. Therefore, the results of the toxicology testing program confirmed the biocompatibility and safety profile of the product solutions for its intended use.



NATURAWAYS Disinfectant 275 & 525

Boeing D6-7127 Test Summary

TECHNICAL SUMMARY – BOEING D6-7127 PROTOCOL

NaturaWays Disinfectant 275 | NaturaWays Disinfectant 525

- I. **Protocol:** Boeing D6-7127 Rev P incorporating PDD 6-8 –
Cleaning Interiors of Commercial Transport Aircraft
Category: Disinfectants

- II. **Test Liquids / Properties (as shown on Certificate of Analysis):**

NaturaWays Disinfectant 275

TEST	ANALYSIS	UNITS
Free Available Chlorine	302	ppm
pH	6.72	n/a
Conductivity	2544	µS/cm
ORP	878	mV

NaturaWays Disinfectant 525

TEST	ANALYSIS	UNITS
Free Available Chlorine	546	ppm
pH	6.86	n/a
Conductivity	2099	µS/cm
ORP	913	mV

- III. **Summary of Test Protocol**

The above-mentioned liquids have been evaluated according to the Boeing D6-7127 Test Protocol. The test protocol includes 11 different tests as mentioned in a) – k), and each test will be summarized in the subsequent paragraphs. The chemicals, NaturaWays Disinfectants 275 and 525, tested for each test are stated under the result table and conclusion of each section.

- a) Sandwich Corrosion Test
- b) Immersion Corrosion Test
- c) Rubber Test
- d) Sealant Test
- e) Painted Surface Test
- f) Tedlar Surface Test
- g) Vinyl Surface Test
- h) Fabric and Carpet Test
- i) Leather and Naugahyde Test
- j) Polycarbonate Crazeing Test
- k) Flash Point Test

a) **SANDWICH CORROSION TEST (Reference: ASTM F1110)**

This test method is intended to be used to qualify and approve chemicals employed in aircraft maintenance operations. The method determines whether aircraft structural aluminum alloys are liable to be corroded or damaged by application of the test chemicals during routine maintenance operations. It evaluates the corrosiveness of test chemicals when present between faying surfaces of aluminum alloys commonly used for aircraft structures. Clad 7075-T6 Aluminum Alloy (AMS 4049) and

Bare 7075-T6 Aluminum Alloy (AMS 4045) anodized per MILA-8625 Type I are used as the test surfaces for this test.

Interpretation of the test results is based on a comparison of the appearance of faying surfaces of three sets of coupons. One set of test coupons is exposed with reagent water only in the faying surfaces to establish the baseline controls. The surfaces exposed to the test chemicals are compared with those exposed to reagent water only. Any corrosion in excess of that shown by the control group is considered as non-conformed.

The relative corrosion severity rating system below is used to allow for a numerical classification of the test results.

Relative corrosion severity rating system:

0—No visible corrosion and no discoloration present

1—Very slight corrosion or very slight discoloration, and/or up to 5 % of area corroded

2—Discoloration and/or up to 10 % of area corroded

3—Discoloration and/or up to 25 % of area corroded

4—Discoloration and/or more than 25 % of area corroded, and/or pitting present

(A) "Area" refers to area where the test material was applied.

NaturaWays Test Results:

Test Chemical	Clad 7075-T6 Aluminum Alloy	Bare 7075-T6 Aluminum Alloy	Test Result
NaturaWays Disinfectant 275	1	1	Conforms
Test Control	1	1	

Conclusion:

Test result of NaturaWays Disinfectant 525 does not conform on the Clad 7075 T6 Aluminum Alloy surface because corrosion caused by the test chemical is in excess of that caused by the test control. Test results of NaturaWays Disinfectant 275 conform for all test surfaces on all test criteria.

b) IMMERSION CORROSION TEST (Reference: ASTM F483)

This method determines the corrosiveness of chemicals on aircraft metals with time under conditions of total immersion through determining the weight change of the test metals after they are immersed with the test chemicals. This method screens test chemicals to ensure compliance with specified weight change criteria. Test chemicals are evaluated on the following panels, 1) Clad 2024-T3 Aluminum (QQ-A-250/5), 2) Bare 2024-T3 Aluminum (QQ-A-250/4) alodined per MIL-C-5541, 3) Bare 2024-T3 Aluminum (QQ-A-250/4) anodized per MIL-A-8625 Type I, and 4) Bare 7178-T6 Aluminum (QQ-A-250/14) anodized per MIL-A-8625 Type I.

Small sections of the above materials are exposed to the test chemical and dried. The weight of the test panel is measured before and after the exposure and drying times. The test chemical shall neither show evidence of corrosion of the test panels nor cause a weight change of the test panels greater than ± 10mg in a 24-hour immersion period per each 1" x 2" test panel.

NaturaWays Test Results:

Test Chemical	Test Panel	Weight Loss in mg (per 1" x 2" panel)	Test Result
NaturaWays Disinfectant 525	Clad 2024-T3 Aluminum (QQ-A-250/5)	0.1	Conforms
	Bare 2024-T3 Aluminum (QQ-A-250/4) alodined per MIL-C-5541	2.3	Conforms
	Bare 2024-T3 Aluminum (QQ-A-250/4) anodized per MIL-A-8625 Type I	0.3	Conforms
	Bare 7178-T6 Aluminum (QQ-A-250/14) anodized per MIL-A-8625 Type I	2.9	Conforms

Conclusion: Test results of the NaturaWays Disinfectant 525 conform on all test panels for all test criteria.

c) RUBBER TEST (Reference: ASTM D471)

This test method evaluates the comparative ability of rubber and rubber-like compositions to withstand the effect of test liquids. It is designed for testing: (1) specimens of vulcanized rubber cut from standard sheets, (2) specimens cut from fabric coated with vulcanized rubber, or (3) finished articles of commerce. Rubber specimens are immersed in the test chemical for 24 hours and are evaluated on the following property changes. Changes in properties shall not exceed the following criteria.

NaturaWays Test Results:

Test Chemical	Property	Maximum Change Allowed	Test Result
NaturaWays Disinfectant 525	Tensile Strength	25 % Loss	< 5 %
	Elongation	25 % Loss	< 5 %
	Volume	± 15 % Loss	< 5 %

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

d) SEALANT TEST

This test method evaluates a sealed surface to withstand the effect of the test liquids. An Aluminum surface primed with paint (that is normally used in Boeing aircrafts) is smeared with the BMS 5-95 Sealant, a sealant commonly used in aircraft materials. The aircraft surface is sealed with 4" x 1" x 0.25" (length x width x thickness) sealant strips, and is immersed in the test liquid for 70 ± 2 hours for 120 ± 5 °F. No lifting or loss of adhesion shall be observed on the test surface after immersion.

NaturaWays Test Results:

Test Chemical	Test Result
NaturaWays Disinfectant 525	Sealant did not lift at edges or lose adhesion.
Test Control	No lifting or loss of adhesion when pried away from edge.

Conclusion: Test result of NaturaWays Disinfectant 525 conforms on all test surfaces for all test criteria.

e) PAINTED SURFACE TEST (Reference: ASTM F502)

This test method covers the determination of the effects of cleaning solutions and chemical maintenance materials on painted aircraft surfaces. Plate and sheet specimens of aluminum alloy are examined under the test liquids. This test method is applicable to any painted film that is exposed to cleaning materials. Test liquid is heated to 149 ± 4 °F and applied to a painted surface having an initial surface temperature of 72 ± 2 °F. Following exposure, streaking, discoloration, and blistering will be determined visually on the test surface. Softening will also be determined with a series of specially prepared pencils wherein determination of the softest pencil to rupture the paint film on the test surface is made. Test liquid shall not produce any color change and shall not decrease the paint film hardness for more than 2 pencil hardnesses.

NaturaWays Test Results:

Test Chemical	Property	Test Result
NaturaWays Disinfectant 525	Pencil Hardness Change	0
	Color Change	None

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

f) TEDLAR SURFACE TEST

This method is used to ensure that test liquids do not leave any scratching, color change or staining on the test tedlar surfaces after exposure to the test liquids. Visual observation is used to determine any scratching or permanent stains which require polishing to remove. Test surfaces are exposed to the test liquid for a specific amount of time in room temperature and then rinsed. Exposed surfaces shall not show any scratching, any greater-than-minimal color change or any staining.

NaturaWays Test Results:

Test Chemical	Test Result
NaturaWays Disinfectant 525	No Scratching, Color Change or Staining of specimens is observed.

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

g) VINYL SURFACE TEST

This method is used to ensure that test liquids do not leave any cracking, brittleness, color change or staining on the test vinyl surfaces after exposure to the test liquids. Test surfaces are exposed to the test liquid for a specific amount of time in room temperature and then rinsed. Exposed surfaces then are visually examined and shall not show any of this above-mentioned signs.

NaturaWays Test Results:

Test Chemical	Test Result
NaturaWays Disinfectant 525	No Scratching, Color Change or Staining of specimens is observed.

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

h) FABRIC AND CARPET TEST

This method is used to ensure that test liquids do not cause any color change or staining on the test fabric and carpet surfaces after exposure to the test liquids. Test surfaces are exposed to the test liquid for a specific amount of time in room temperature and then rinsed. Exposed surfaces are then visually evaluated to check for any color change or staining after exposure to the test liquid.

The test fabric and carpet surfaces are also evaluated on its flammability after being immersed into the test liquid and dried. Test surfaces are completely coated with the test liquid, let soaked for a specific amount of time and then allowed to dry. The dried surfaces are then hung, applied with a flame and allowed for a vertical burn for 12 seconds. Self-Extinguishing time, Burn Length and Drip Extinguish Time will then be determined on the test surfaces. Each of these parameters shall not exceed the maximum value as stated in the table below.

NaturaWays Test Results:

Test Chemical	Test Surface	Property	Maximum Value	Test Result	
NaturaWays Disinfectant 525	Upholstery	Color Change	N/A	None	
		Staining	N/A	None	
		Flammability	Extinguishing Time	15 seconds	< 3 seconds
			Burn Length	8 inches	7 inches
			Drip Extinguish Time	5 seconds	< 3 seconds
	Carpet	Color Change	N/A	None	
		Staining	N/A	None	
		Flammability	Extinguishing Time	15 seconds	< 3 seconds
			Burn Length	8 inches	4 inches
			Drip Extinguish Time	5 seconds	< 3 seconds

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

i) LEATHER AND NAUGAHYDE TEST

This practice is used to evaluate the compatibility of the test liquids with the test surfaces, i.e. lather and Naugahyde surfaces. Test surfaces are exposed to the test liquid for a specific amount of time in room temperature and then rinsed. Visual observation is used for determining any signs of crackling or brittleness, as well as any color change or staining of exposed surfaces. Exposed surfaces shall not show any of the above-mentioned signs after exposure to the test liquid.

NaturaWays Test Results:

Test Chemical	Property	Test Result
NaturaWays Disinfectant 525	Cracking or Brittleness	None
	Color Change or Staining	None

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

j) POLYCARBONATE CRAZING TEST (Reference: ASTM F484)

This test method covers the procedure for determining the crazing effect caused by test liquids on the test materials under bending stress. The materials to be tested include Lexan 9600 and BMS8-400 BAC 70913 plastics, which are commonly used in aircraft structures. Each test surface is bent under a strain of 0.008 and the stressed materials are then exposed to the test liquid for 10 minutes. Exposed surfaces are then visually examined on any signs of cracking or crazing after exposure to test liquids.

NaturaWays Test Result / Conclusion:

Test Chemical	Test Surface	Test Result
NaturaWays Disinfectant 525	Lexan 9600	No cracking or crazing
	BMS8-400 BAC 70913	No cracking or crazing

Conclusion: Test results of NaturaWays Disinfectant 525 conform on all test specimens for all test criteria.

k) FLASH POINT TEST (Reference: ASTM D93)

This test is done for information only. The flash point of the test liquid is determined following the ASTM D93 method, all cleaning candidates having a flash point not lower than 212°F shall be approved by the Fire Protection Engineering before they can be evaluated to be used.

NaturaWays Test Result / Conclusion: No flash point is observed to 212°F for the test liquid.

IV. Summary of all Test Results

Test results of NaturaWays Disinfectant 525 conform for all test criteria on all the tests included in the Boeing D6-7127 Protocol except for the Clad 7075 T6 Aluminum Alloy surface of the Sandwich Corrosion Test. This test was later repeated with the NaturaWays Disinfectant 275, with a passing test result.

V. References

- SMI Test Report, Boeing D6-7127 Protocol, NaturaWays Disinfectant 525, SMI/REF #1412-370
- SMI Test Report, Boeing D6-7127 Protocol, NaturaWays Disinfectant 275, SMI/REF #1503-629
- NaturaWays Certificate of Analysis, NaturaWays Disinfectant 525, dated 011415
- NaturaWays Certificate of Analysis, NaturaWays Disinfectant 275, dated 032715



NATURAWAYS Disinfectant 275 & 525

EPA Registration

Highlighted

NaturaWays Disinfectant 275

**Hypochlorous Acid Solution
Generated Electrochemically from Sodium Chloride**

ACTIVE INGREDIENT:	
Hypochlorous Acid	0.0275%
OTHER INGREDIENTS:	<u>99.9725%</u>
TOTAL:	100.0000%

Contains > 275ppm Free Available Chlorine (FAC)

**KEEP OUT OF REACH OF CHILDREN
CAUTION
See Back Label for Precautionary Statements**

EPA Reg. No. 93392-1

Est. No. xxxxx-xx-xxx

Manufactured by:
Aquaox

***NaturaWays Disinfectant 275 must be used within 30 days after production OR Product must be tested with chlorine test kit provided by NaturaWays.
DO NOT USE PRODUCT when Chlorine concentration is below 248ppm.***

DATE PRODUCED: _____

Container size: 1 gallon, 5 gallon, 30 gallon, 55 gallon, 275 gallon, 330 gallon, 660 gallon

NaturaWays Disinfectant 275 is a Hypochlorous Acid solution produced by passing an aqueous saline solution (brine) through 1 o r m o r e electrolytic cells. The current within the electrolytic cell(s) splits the sodium chloride compound into two separate fluids. One fluid is Hypochlorous Acid, a powerful oxidizing agent exhibiting antimicrobial properties.

NaturaWays Disinfectant 275 is produced at a near neutral pH, (approximately pH 6.5) where the predominant antimicrobial agent is Hypochlorous Acid, an efficient and efficacious species of chlorine. Hypochlorous Acid kills bacteria, fungi, molds, viruses and spores.

NaturaWays Disinfectant 275 properties are closely controlled by controlling the voltage and the current to the electrolytic cell(s), brine conductivity, temperature and flow rate through the cells as well as the pH of the Hypochlorous Acid generated in the cell(s).

NaturaWays Disinfectant 275 freezes at 32°F and boils at 212°F. It is a colorless and aqueous solution with a slight chlorine or ozone odor.

After production, **NaturaWays Disinfectant 275** must be stored in a closed plastic container in a cool and dark area away from direct sunlight.

NaturaWays Disinfectant 275 is intended to be used soon after being produced.

Optional Marketing Statements:

- Directions Spray cleaned surfaces and allow to air dry
- No wiping needed
- See attached insert for precautionary statements, directions for use, storage and disposal statements.
- a cost-effective disinfecting solution;
- produced with low energy and low costs from water and salt;
- produced in a single-stage process by a simple electrolytic cell;
- produced for use in medical, institutional, industrial and commercial applications and
- produced with a controlled pH and controlled concentration of Free Available Chlorine (FAC).
- NaturaWays Disinfectant 275 is fast acting, bleach-free.
- NaturaWays Disinfectant 275 is organic, biodegradable and eco-friendly.
- NaturaWays Disinfectant 275 leaves no residue.
- NaturaWays Disinfectant 275 does not harm (environmental) surfaces.
- NaturaWays Disinfectant 275 is made from salt and water.
- NaturaWays Disinfectant 275 will eventually degrade back to salt and water.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Hard, Non-Porous Surface Disinfection

To [Clean and] Disinfect [and Deodorize] Hard, Non-Porous Surfaces: For heavily soiled areas, a preliminary cleaning is required. Apply [*Wipe, Spray or Dip*] **NaturaWays Disinfectant** to hard, non-porous surfaces with a cloth, wipe, mop, sprayer, sponge or a spray applicator. Treated surfaces must remain wet for 10 minutes. Allow surfaces to air dry. Do not use on utensils, glasses or dishes.

Follow the instructions below when applying with a spray applicator for hard, non-porous surface disinfection: (1) Remove disinfectant liquid at or over 1-week-old from the liquid storage tank; (2) Fill the empty liquid storage tank with fresh **NaturaWays Disinfectant 275** liquid; (3) Turn on the power on the main electrical switch; (4) Pull out the spray gun and point towards the target area to be sprayed;

(5) Press the sprayer button and start spraying at a recommended distance of between 1½ – 4 ft. from the target area; (6) When applying to a large, hard, non-porous surface, use a recommended motion of a 3-ft., side-by-side motion. Allow an overlap of 50% of the sprayed area when spraying from the top to the bottom, and an overlap of 10% when spraying adjacent areas; (7) Sprayed surfaces must remain wet for 10 minutes. Allow surfaces to air dry. Do not use on utensils, glasses or dishes.

This product is not to be used as a terminal sterilant / high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, or (2) contacts intact mucous membranes but which do not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical devices prior to sterilization or high-level disinfection.

Pathogen	Strain	Contact Time
Pseudomonas aeruginosa	ATCC 15442	10 minutes
Staphylococcus aureus	ATCC 6538	10 minutes
Swine Influenza Virus (H1N1)	ATCC VR-333	10 minutes
Salmonella enterica	ATCC 10708	10 minutes

CLAIMS

- + Broad Spectrum Disinfectant
- + One-Step Cleaner / Disinfectant when Disinfection Directions are followed
- + Aids in the Reduction of Cross-Contamination between Treated Surfaces
- + This Disinfection Process assures Proper Strength, Product Effectiveness and Standardizes Technique
- + Formulated for Bacteria Fighting
- + Bactericide - or - Bactericidal
- + Bathroom Disinfectant
- + Nursery Disinfectant
- + Athletic Facility Disinfectant
- + Cleans and Disinfects Site(s) on Tables 1 – 4 below
- + Cleans and Disinfects Hard, Non-Porous Surfaces
- + Cleans, Deodorizes and Disinfects
- + Deodorizes by Killing Odor-Causing Bacteria

- + Disinfecting Formula
- + Disinfects and Deodorizes by Killing Bacteria and their Odors
- + Eliminates - or - Reduces Odors caused by Bacteria
- + Eliminates odors at their source; bacteria
- + Disinfects Hard, Non-Porous Surfaces on Site(s) on Tables 1 – 4 below
- + Easy and Convenient Disinfecting on Site(s) on Tables 1 – 4 below
- + Easy One-Step Cleaning and Disinfecting when Disinfection Directions are followed
- + Effective against - or - Kills Organism(s) mentioned in Table on Page 2 above
- + Effective against - or - Kills H1N1 Swine Influenza virus
- + Effectively Disinfects Hard, Non-Porous, Environmental Surfaces
- + Fight(s) - and/or - Kill(s) - and/or - Effective against *Salmonella enterica*
- + Fight(s) - and/or - Kill(s) - and/or - Effective against *Staphylococcus aureus*
- + Fight(s) - and/or - Kill(s) - and/or - Effective against *Pseudomonas aeruginosa*
- + Fight(s) - and/or - Stops - and/or - Prevent(s) Cross-Contamination on Hard, Non-Porous Surfaces on Tables 1 – 4 below
- + Kills Odor-Causing Bacteria mentioned in Table on Page 2 above
- + Kills - or - Effective against Bacteria mentioned in Table on Page 2 above
- + Multi-Purpose Disinfectant
- + One-Step Cleaner and Disinfectant when Disinfection Directions are followed
- + One-Step Cleaner and Disinfectant (when Disinfections Direction are followed) designed for General Cleaning and Disinfecting Hard, Non-Porous Environmental Surfaces in Health Care Facilities and on Sites listed on Tables 1–4 below
- + Pseudomonocidal
- + Staphylocidal
- + Ready-to-Use Hospital Disinfectant
- + The Answer to your Disinfecting Needs
- + The Easy - and/or - Convenient way to Disinfect
- + This Product controls Cross-Contamination on most Hard, Non-Porous Surfaces
- + This Product meets AOAC Efficacy Testing Requirements - or - Standards for Hospital Disinfection
- + Use in Public - or - Common Places where Bacteria may be of concern on Hard, Non-Porous Surfaces
- + Use where Control of the Hazards of Cross-Contamination between Treated Hard Non-Porous Surfaces is of Importance
- + Incidental overspray on porous surfaces (such as fabrics, clothes, painted surfaces, wood, unfinished wood) will not harm the material.

GENERAL CLAIMS

- + Convenient
- + For General Use
- + For Use on Nursery Surfaces
- + Suitable for Hospital Use
- + Will not Harm Surfaces listed on Tables 1 – 4
- + Will not Harm Hard, Non-Porous Inanimate Environmental Surfaces
- + Will not Harm Titanium-Coated, Medical Grade Stainless Steel
- + Easy to Handle
- + For Use on Bathroom Surfaces
- + For Use in Athletic Facilities
- + For Use on Athletic Equipment

TABLE ONE: Medical Environments

USE SITES

- + Ambulances - or - Emergency Medical Transport Vehicles
- + Anesthesia Rooms - or - Areas
- + Assisted Living - or - Full Care Nursing Homes
- + CAT Laboratories
- + Central Service Areas
- + Central Supply Rooms - or - Areas Critical Care Units - or - C CUs
- + Dialysis Clinics
- + Emergency Rooms - or - RS (Registered Sanitarian) Health Care Settings - or Facilities
- + Home Health Care Settings
- + Hospitals
- + Intensive Care Unit s - or - ICU Laboratories
- + Medical - or - Physician's - or - Doctor's Offices Newborn - or - Neonatal Nurseries
- + Medical Clinics
- + Medical Facilities
- + Nursing - or - Nurses' Stations
- + Orthopedics
- + Outpatient Clinics
- + Patient Restrooms
- + Patient Rooms
- + Pediatric Examination Rooms - or - Areas
- + Pharmacies
- + Physical Therapy Rooms - or - Areas
- + Radiology - or - X-Ray Rooms - or - Areas
- + Surgery Rooms - or - Operating Rooms - or ORs

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Bed pans
- + Exam - or - Examination Table:
- + External Surfaces of Medical Equipment - or - Medical Equipment Surfaces
- + External Surfaces of Ultrasound Transducers
- + Gurneys
- + Hard, Non-Porous Environmental Hospital - or - Medical Surfaces
- + Hospital - or - Patient Bed Railings - or - Linings - or - Frames
- + IV Poles
- + Patient Chairs
- + Plastic Mattress Covers
- + Reception Counters - or - Desks - or - Areas
- + Stretchers
- + Wash Basins
- + Wheelchairs

TABLE TWO: Dental Environment:

USE SITES

- + Dental - or - Dentist's Offices
- + Dental Operatory rooms

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Dental Countertops
- + Dental Operatory Surfaces
- + Dentist - or - Dental Chairs
- + Hard, Non-Porous Environmental Dental Surfaces
- + Light Lens Covers
- + Reception Counters - or - Desks - or - Areas

TABLE THREE: Veterinary Environments:

Animal Premises: Remove all animals and feed from the premises, vehicles, and enclosures. Remove all litter, droppings and manure from the floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap and/or detergent and rinse with water.

Apply **NaturaWays Disinfectant** and saturate surfaces with solution for 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure.

After application, ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set, or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

USE SITES

- + Animal - or - Pet Grooming Facilities Kennels
- + Animal Housing Facilities
- + Animal Life Science Laboratories
- + Livestock - and/or - Swine - and/or - Poultry Facilities
- + Pet Areas
- + Pet Shops - or - Stores
- + Small Animal Facilities
- + Veterinary - or - Animal Hospitals
- + Veterinary Clinics - or - Facilities
- + Veterinary Offices

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Animal Equipment Automatic Feeders
- + Cages
- + External Surfaces of Veterinary Equipment
- + Feed Racks
- + Fountains
- + Hard, Non-Porous Environmental Veterinary Surfaces
- + Pens
- + Reception Counters - or - Desks - or - Areas Stalls
- + Troughs
- + Veterinary Care Surfaces
- + Watering Appliances

TABLE FOUR: Miscellaneous / General Environments

USE SITES

- + Airplanes
- + Blood Banks
- + Boats
- + Bowling Alleys
- + Chillers
- + Churches
- + Colleges
- + Correctional Facilities
- + Cruise Lines
- + Day Care Centers
- + Dormitories
- + Factories
- + Funeral Homes
- + Grocery Stores
- + Gymnasiums - or - Gyms
- + Health Club Facilities
- + Hotels
- + Industrial Facilities
- + Laundromats
- + Laundry Rooms Locker Rooms
- + Manufacturing Facilities
- + Manufacturing Plants - or - Facilities
- + Military Installations
- + Motels
- + Preschool Facilities
- + Public Areas
- + Recreational Centers - or - Facilities
- + Restrooms - or - Restroom Areas
- + School Buses
- + Schools
- + Shelters
- + Shower Rooms
- + Storage Rooms - or - Areas
- + Supermarkets
- + Trains
- + Universities
- + Wineries
- + Yachts

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Bathroom Fixtures
- + Bathtubs
- + Behind and under Counters
- + Behind and under Sinks
- + Booster Chairs
- + Cabinets Ceilings
- + Cellular - or - Wireless - or - Mobile - or - Digital Phones
- + Chairs
- + Computer Keyboards
- + Computer Monitors
- + Counters - or - Countertops
- + Cribs
- + Desks
- + Diaper - or - Infant Changing Tables
- + Diaper Pails
- + Dictating Equipment Surfaces
- + Doorknobs
- + Exterior - or - External Toilet Surfaces
- + Exterior - or - External Urinal Surfaces
- + Faucets
- + Floors
- + Garbage - or - Trash Cans
- + Grocery Store - or - Supermarket Carts
- + Hampers
- + Hand Railings
- + Headsets
- + Highchairs
- + Lamps
- + Linoleum
- + Playpens
- + Shelves
- + Showers - or - Shower Stalls
- + Sinks
- + Stall Doors
- + Tables
- + Telephones
- + Tiled Walls
- + Toilet Rims
- + Toilet Seats
- + Towel Dispensers
- + Toys
- + Vanity Tops - or - Vanities
- + Other Telecommunications Equipment Surfaces

SURFACE MATERIALS

- + Baked enamel
- + Chrome
- + Common Hard, Non-Porous Household - or - Environmental Surfaces
- + Formica
- + Glass
- + Glazed Ceramic Tile
- + Glazed Porcelain
- + Glazed Porcelain Enamel
- + Laminated Surfaces
- + Plastic Laminate
- + Stainless Steel
- + Synthetic Marble
- + Vinyl Tile
- + Similar Hard, Non-Porous Surfaces except those excluded by the label

Not Recommended For Use On - or - Avoid Contact With

- + Aluminum Brass
- + Chipped enamel
- + Clear plastic
- + Clothes
- + Copper
- + Fabrics
- + Gold
- + Natural marble
- + Natural rubber
- + Painted surfaces
- + Paper surfaces
- + Sealed granite
- + Silver
- + Unfinished wood
- + Wood

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

For Industrial and Commercial Use Packages:

Pesticide Storage: Store in a closed dark plastic container in a cool, dry area away from heat and sunlight. Do not store near easily oxidizable materials, acids, and reducers. In case of spill, isolate container (if possible) and flood area with water to dissolve all material before discarding this container in trash.

Emergency Handling: In case of contamination or decomposition. Do not reseal container. Isolate in open, well-ventilated area. Flood with large amounts of water. Cool unopened containers in vicinity by water spray.

Pesticide Disposal: Pesticide wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environment Control Agency, or the Hazardous Waste Representative at the EPA Regional Office for guidance.

Small packages (5 gallons or less):

Container Handling: Non-refillable rigid container. Do not reuse or refill this container. Triple-rinse container (or equivalent) promptly after emptying. Triple-rinse as follows: Empty the remaining contents into the application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Full the container $\frac{1}{4}$ with water and recap. Shake for 10 seconds. Pour rinsate contents into the application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure 2 more times. Then offer for recycling or reconditioning if available or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay clear of smoke.

Container Handling: Refillable container. Refill this container with **NaturaWays Disinfectant** only.

Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Cleaning the container before final disposal is the responsibility of the person disposing the container. To clean the container before final disposal, empty the remaining contents into the application equipment or a mix tank. Agitate vigorously or recirculate water with the pump for 2 minutes. Dispose of rinsate as pesticide waste. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by procedures allowed by state and local authorities.

PRECAUTIONARY STATEMENTS

Physical or Chemical Hazards: **NaturaWays Disinfectant 275** is not compatible with other chemicals such as acids and hydrogen peroxide.

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Avoid contact with eyes. When handling the product, wear safety glasses or goggles. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

FIRST AID

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center, doctor or going for treatment. You may also contact the National Pesticide Information Center (NPIC) 1-800-858-7378 for emergency medical treatment information.

If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
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HIGHLIGHTED

NaturaWays Disinfectant 525

Hypochlorous Acid Solution

Generated Electrochemically from Sodium Chloride

ACTIVE INGREDIENT:	
Hypochlorous Acid	0.0525%
OTHER INGREDIENTS:	<u>99.9475%</u>
TOTAL:	100.0000%

Contains > 525ppm Free Available Chlorine (FAC)

KEEP OUT OF REACH OF CHILDREN
CAUTION
See Back Label for Precautionary Statements

EPA Reg. No. 93392-2

Est. No. xxxxx-xx-xxx

Manufactured by:

Aquaox

NaturaWays Disinfectant 525 must be used within 30 days after production OR Product must be tested with chlorine test kit provided by NaturaWays.

DO NOT USE PRODUCT when Chlorine concentration is below 473ppm.

DATE PRODUCED: _____

Container size: 1 gallon, 5 gallon, 30 gallon, 55 gallon, 275 gallon, 330 gallon, 660 gallon

NaturaWays Disinfectant 525 is a Hypochlorous Acid solution produced by passing an aqueous saline solution (brine) through 1 or more electrolytic cells. The current within the electrolytic cell(s) splits the sodium chloride compound into two separate fluids. One fluid is Hypochlorous Acid, a powerful oxidizing agent exhibiting antimicrobial properties.

NaturaWays Disinfectant 525 is produced at a near neutral pH, (approximately pH 6.5) where the predominant antimicrobial agent is Hypochlorous Acid, an efficient and efficacious species of chlorine. Hypochlorous Acid kills bacteria, fungi, molds, viruses and spores.

NaturaWays Disinfectant 525 properties are closely controlled by controlling the voltage and the current to the electrolytic cell(s), brine conductivity, temperature and flow rate through the cells as well the pH of the Hypochlorous Acid generated in the cell(s).

NaturaWays Disinfectant 525 freezes at 32°F and boils at 212°F. It is a colorless and aqueous solution with a slight chlorine or ozone odor.

After production, **NaturaWays Disinfectant 525** must be stored in a closed plastic container in a cool and dark area away from direct sunlight.

NaturaWays Disinfectant 525 is intended to be used soon after being produced.

Optional Marketing Statements:

- a cost-effective disinfecting solution.
- produced with low energy and low costs from water and salt.
- produced in a single-stage process by a simple electrolytic cell.
- produced for use in medical, institutional, industrial, and commercial applications and
- produced with a controlled pH and controlled concentration of Free Available Chlorine (FAC).
- Directions: Spray cleaned surfaces and allow to air dry
- No wiping needed
- See attached insert for precautionary statements, directions for use, storage, and disposal statements.
- NaturaWays Disinfectant 525 is fast acting, bleach-free.
- NaturaWays Disinfectant 525 is organic, biodegradable, and eco-friendly.
- NaturaWays Disinfectant 525 leaves no residue.
- NaturaWays Disinfectant 525 does not harm (environmental) surfaces.
- NaturaWays Disinfectant 525 is made from salt and water.
- NaturaWays Disinfectant 525 will eventually degrade back to salt and water.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Hard, Non-Porous Surface Disinfection

To [Clean and] Disinfect [and Deodorize] Hard, Non-Porous Surfaces: For heavily soiled areas, a preliminary cleaning is required. Apply [*Wipe, Spray or Dip*] **NaturaWays Disinfectant** to hard, non-porous surfaces with a cloth, wipe, mop, sprayer, sponge or a spray applicator. Treated surfaces must remain wet for 10 minutes. Allow surfaces to air dry. Do not use on utensils, glasses or dishes.

Follow the instructions below when applying with a spray applicator for hard, non-porous surface disinfection: (1) Remove disinfectant liquid at or over 1-week-old from the liquid storage tank; (2) Fill the empty liquid storage tank with fresh **NaturaWays Disinfectant 525** liquid; (3) Turn on the power on the main electrical switch; (4) Pull out the spray gun and point towards the target area to be sprayed;

(5) Press the sprayer button and start spraying at a recommended distance of between 1½ – 4 ft. from the target area; (6) When applying to a large, hard, non-porous surface, use a recommended motion of a 3-ft., side-by-side motion. Allow an overlap of 50% of the sprayed area when spraying from the top to the bottom, and an overlap of 10% when spraying adjacent areas; (7) Sprayed surfaces must remain wet for 10 minutes. Allow surfaces to air dry. Do not use on utensils, glasses or dishes.

This product is not to be used as a terminal sterilant / high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical devices prior to sterilization or high-level disinfection.

Pathogen	Strain	Contact Time
Pseudomonas aeruginosa	ATCC 15442	10 minutes
Staphylococcus aureus	ATCC 6538	10 minutes
Staphylococcus aureus (HA-MRSA)	ATCC 33591	10 minutes
Swine Influenza Virus (H1N1)	ATCC VR-333	10 minutes
Escherichia coli (NDM)	ATCC BAA-2469	10 minutes
Vancomycin Resistant Enterococcus faecalis (VRE)	ATCC 700221	10 minutes
Human Immunodeficiency Virus Type 1 (HIV-1)	Mn; ZeptoMetrix#0810027CF	10 minutes
Mycobacterium bovis (BCG)	ATCC #35734	10 minutes
Salmonella enterica	ATCC 10708	10 minutes

Claims

- + Broad spectrum disinfectant

- + One-step cleaner/disinfectant when disinfection directions are followed
- + Aids in the reduction of cross-contamination between treated surfaces
- + This Disinfection Process assures proper strength, product effectiveness and standardizes technique
- + Formulated for bacteria fighting
- + Bactericide - or - Bactericidal
- + Bathroom disinfectant
- + + Nursery disinfectant
- + Athletic facility disinfectant
- + Cleans and disinfects sites listed on Tables 1 – 4 below
- + Cleans and disinfects hard, non-porous surfaces
- + Cleans, deodorizes, and disinfects
- + Deodorizes by Killing Odor-Causing Bacteria
- + Disinfecting formula
- + Disinfects and deodorizes by killing bacteria and their odors
- + Disinfects hard, non-porous surfaces on sites listed on Tables 1 – 4 below
- + Easy and convenient disinfecting on sites listed on Tables 1 – 4 below
- + Easy one-step cleaning and disinfecting when disinfection directions are followed
- + Effective against - or - Kills organisms listed on Table on Page 2 above
- + Effective against - or - Kills a wide range of bacteria including *Staphylococcus aureus*, *MRSA*, *Salmonella enterica*, and *Pseudomonas aeruginosa*
- + Effectively disinfects hard, non-porous, environmental surfaces
- + Eliminates odors at their source; bacteria
- + Eliminates - or - Reduces odors caused by bacteria
- + Fight(s) - and/or - Kill(s) - and/or - Effective against *Salmonella enterica*
- + Fight(s) - and/or - Kill(s) - and/or - Effective against *Staphylococcus aureus* and *MRSA*
- + Fight(s) - and/or - Kill(s) - and/or - Effective against *Pseudomonas aeruginosa*
- + Fight(s) - and/or - Stops - and/or - Prevent(s) cross-contamination on hard, non-porous surfaces on sites listed on Tables 1 – 4
- + Kills bacteria
- + Kills many common bacteria
- + Kills odor-causing bacteria
- + Kills - or - Effective against bacteria
- + Multi-purpose disinfectant
- + One-step cleaner and disinfectant when disinfection directions are followed
- + One-step disinfectant cleaner (when disinfection directions are followed) designed for general cleaning and disinfecting hard, non-porous environmental surfaces in health care facilities - or - and sites listed on Tables 1 – 4 below.
- + Pseudomonocidal
- + Ready-to-use hospital disinfectant
- + Staphylocidal
- + The answer to your disinfecting needs
- + The quick - and/or - easy - and/or - convenient way to disinfect
- + This product controls cross-contamination on most hard, non-porous surfaces
- + This product meets AOAC efficacy testing requirements - or - standards for hospital disinfection
- + Use in public - or - common places where bacteria may be of concern on hard, non-porous surfaces
- + Use where control of the hazards of cross-contamination between treated hard non-porous surfaces is of Prime importance
- + Kills - or - Effective against H1N1 Swine Influenza virus
- + Incidental overspray on porous surfaces (such as fabrics, clothes, painted surfaces, wood, unfinished wood) will not harm the material.

GENERAL CLAIMS

- + Convenient
- + For General Use
- + For use on Nursery Surfaces
- + Suitable for HOSPITAL USE
- + Will not Harm Surfaces listed on Tables 1 – 4
- + Will not Harm Hard, Non-Porous Inanimate Environmental Surfaces
- + Will not Harm Titanium-Coated, Medical Grade Stainless Steel
- + Easy to Handle
- + For use on Bathroom Surfaces
- + For use in Athletic Facilities
- + For use on Athletic Equipment

TABLE ONE: Medical Environments

USE SITES

- + Ambulances - or - Emergency Medical Transport Vehicles
- + Anesthesia Rooms - or - Areas
- + Assisted Living - or - Full Care Nursing Homes
- + CAT Laboratories
- + Central Service Areas
- + Central Supply Rooms - or - Areas Critical Care Units - or - C CUs
- + Dialysis Clinics
- + Emergency Rooms - or - RS (Registered Sanitarian) Health Care Settings - or Facilities
- + Home Health Care Settings
- + Hospitals
- + Intensive Care Unit s - or - ICU Laboratories
- + Medical - or - Physician's - or - Doctor's Offices Newborn - or - Neonatal Nurseries
- + Medical Clinics
- + Medical Facilities
- + Nursing - or - Nurses' Stations
- + Orthopedics
- + Outpatient Clinics
- + Patient Restrooms
- + Patient Rooms
- + Pediatric Examination Rooms - or - Areas
- + Pharmacies
- + Physical Therapy Rooms - or - Areas
- + Radiology - or - X-Ray Rooms - or - Areas
- + Surgery Rooms - or - Operating Rooms - or - ORs

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Bed pans
- + Exam - or - Examination Table
- + External surfaces of Medical Equipment - or - Medical Equipment surfaces
- + External surfaces of Ultrasound Transducers
- + Gurneys
- + Hard, Non-Porous Environmental Hospital - or - Medical Surfaces
- + Hospital - or - Patient Bed Railings - or - Linings - or - Frames
- + IV Poles
- + Patient Chairs
- + Plastic Mattress Covers
- + Reception Counters - or - Desks - or - Areas
- + Stretchers
- + Wash Basins
- + Wheelchairs

TABLE TWO: Dental Environment

USE SITES

- + Dental Operatory rooms
- + Dental - or - Dentist's Offices

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Dental Countertops
- + Dental Operatory Surfaces
- + Dentist - or - Dental Chairs
- + Hard, Non-Porous Environmental Dental Surfaces
- + Light Lens Covers
- + Reception Counters - or - Desks - or - Areas

TABLE THREE: Veterinary Environments

Animal Premises: Remove all animals and feed from the premises, vehicles, and enclosures. Remove all litter, droppings and manure from the floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap and/or detergent and rinse with water.

Apply **NaturaWays Disinfectant** and saturate surfaces with solution for 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure.

After application, ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set, or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

USE SITES

- + Animal - or - Pet Grooming Facilities Kennels
- + Animal Housing Facilities
- + Animal Life Science Laboratories
- + Livestock - and/or - Swine - and/or - Poultry Facilities
- + Pet Areas
- + Pet Shops - or - Stores
- + Small Animal Facilities
- + Veterinary - or - Animal Hospitals
- + Veterinary Clinics - or - Facilities
- + Veterinary Offices

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Animal Equipment Automatic Feeders
- + Cages
- + External surfaces of Veterinary Equipment
- + Feed Racks
- + Fountains
- + Hard, Non-Porous Environmental Veterinary Surfaces
- + Pens
- + Reception Counters - or - Desks - or - Stall Areas
- + Troughs
- + Veterinary Care Surfaces
- + Watering Appliances

TABLE FOUR: Miscellaneous / General Environments

USE SITES

- + Airplanes
- + Blood Banks
- + Boats
- + Bowling Alleys
- + Chillers
- + Churches
- + Colleges
- + Correctional Facilities
- + Cruise Lines
- + Day Care Centers
- + Dormitories
- + Factories
- + Funeral Homes
- + Grocery Stores
- + Gymnasiums - or - Gyms
- + Health Club Facilities
- + Hotels
- + Industrial Facilities
- + Laundromats
- + Laundry Rooms Locker Rooms
- + Manufacturing Facilities
- + Manufacturing Plants - or - Facilities
- + Military Installations
- + Motels
- + Preschool Facilities
- + Public Areas
- + Recreational Centers - or - Facilities
- + Restrooms - or - Restroom Areas
- + School Buses
- + Schools
- + Shelters
- + Shower Rooms
- + Storage Rooms - or - Areas
- + Supermarkets
- + Trains
- + Universities
- + Wineries
- + Yachts

SURFACES (Applicable to Surface Materials listed on Page 9)

- + Bathtubs
- + Bathroom Fixtures
- + Behind and under Counters
- + Behind and under Sinks
- + Booster Chairs
- + Cabinets Ceilings
- + Cellular - or - Wireless - or - Mobile - or - Digital Phones
- + Chairs
- + Computer Keyboards
- + Computer Monitors
- + Counters - or - Countertops
- + Cribs
- + Desks
- + Diaper - or - Infant Changing Tables
- + Diaper Pails
- + Dictating Equipment Surfaces
- + Doorknobs
- + Exterior - or - external Toilet Surfaces
- + Exterior - or - external Urinal Surfaces
- + Faucets
- + Floors
- + Garbage - or - Trash Cans
- + Grocery store - or - Supermarket Carts
- + Hampers
- + Hand Railings
- + Headsets
- + Highchairs
- + Lamps
- + Linoleum
- + Playpens
- + Shelves
- + Showers - or - Shower Stalls
- + Sinks
- + Stall Doors
- + Tables
- + Telephones
- + Tiled Walls
- + Toilet Rims
- + Toilet Seats
- + Towel Dispensers
- + Toys
- + Vanity tops - or - Vanities
- + Other Telecommunications Equipment Surfaces

SURFACE MATERIALS

- + Baked enamel
- + Chrome
- + Common Hard, Non-Porous Household - or - Environmental Surfaces
- + Formica
- + Glass
- + Glazed Ceramic Tile
- + Glazed Porcelain
- + Glazed Porcelain Enamel
- + Laminated Surfaces
- + Plastic Laminate
- + Similar Hard, Non-Porous Surfaces except those excluded by the Label
- + Stainless Steel
- + Synthetic Marble
- + Vinyl Tile

Not Recommended For Use On - or - Avoid Contact With

- + Aluminum Brass
- + Chipped Enamel
- + Clear Plastic
- + Clothes
- + Copper
- + Fabrics
- + Gold
- + Natural Marble
- + Natural Rubber
- + Painted Surfaces
- + Paper Surfaces
- + Sealed Granite
- + Silver
- + Unfinished Wood
- + Wood

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

For Industrial and Commercial Use Packages:

Pesticide Storage: Store in a closed dark plastic container in a cool, dry area away from heat and sunlight. Do not store near easily oxidizable materials, acids and reducers. In case of spill, isolate container (if possible) and flood area with water to dissolve all material before discarding this container in trash.

Emergency Handling: In case of contamination or decomposition. Do not reseal container. Isolate in open, well-ventilated area. Flood with large amounts of water. Cool unopened containers in vicinity by water spray.

Pesticide Disposal: Pesticide wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environment Control Agency, or the Hazardous Waste Representative at the EPA Regional Office for guidance.

Small Packages (5 gallons or less):

Container Handling: Nonrefillable rigid container. Do not reuse or refill this container. Triple-rinse container (or equivalent) promptly after emptying. Triple-rinse as follows: Empty the remaining contents into the application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ with water and recap. Shake for 10 seconds. Pour rinsate contents into the application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure 2 more times. Then offer for recycling or reconditioning if available or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay clear of smoke.

Container Handling: Refillable container. Refill this container with **NaturaWays Disinfectant** only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Cleaning the container before final disposal is the responsibility of the person disposing the container. To clean the container before final disposal, empty the remaining contents into the application equipment or a mix tank. Agitate vigorously or recirculate water with the pump for 2 minutes. Dispose of rinsate as pesticide waste. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by procedures allowed by state and local authorities.

PRECAUTIONARY STATEMENTS

Physical or Chemical Hazards: **NaturaWays Disinfectant 525** is not compatible with other chemicals such as acids and hydrogen peroxide.

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Avoid contact with eyes. When handling the product, wear safety glasses or goggles. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

FIRST AID

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center, doctor or going for treatment. You may also contact the National Pesticide Information Center (NPIC) 1-800-858-7378 for emergency medical treatment information.

If in eyes

- Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.



NATURAWAYS Disinfectant & Cleaner

Safety Data Sheets



Safety Data Sheet

NATURAWAYS DISINFECTANT 275

SECTION I – IDENTIFICATION

Product Name: NaturaWays Disinfectant 275 | Product Number: AX 275
Product Description: Hypochlorous Acid Solution Generated Electro-Chemically from Diluted
Brine CAS Number: None (Mixture)
Recommended Use: This product is a ready-to-use, one-step cleaner and disinfectant for general cleaning and disinfecting on hard, non-porous surfaces
Restricted Use: This product is not for human or animal use
Distributed by: NaturaWays, LLC
Address: 521-K Marine View Ave., Belmont, CA 94002
Number: (800) 376-0652
Chemtrec Emergency Number: (800)-424-9300
Manufactured By: Aquaox

SECTION II – HAZARDS IDENTIFICATION

HMIS Rating:

- Health = 0
- Flammability = 0
- Physical = 0
- Reactivity = 0

NFPA/HMIS Definitions

0 = Minimal Hazard
1 = Slight Hazard
2 = Moderate Hazard
3 = Serious Hazard
4 = Severe Hazard

Personal Protection Index: B (Eye Protection and Gloves)

Hazard Information Disclosures:

TSCA: All chemicals in this product are listed on the EPA TSCA inventory list.
CERCLA/SARA: This product does not fall under any hazardous categories under SARA Sections 311 and 312.
OSHA: This product is not a hazardous chemical as defined by the OSHA Hazard Communication Standard, 29 CFR § 1910.1200.

Product Label on Hazard Information:

- Avoid Contact with Eyes and Skin
- Wash Hands after Handling Product
- Keep out of Reach of Children

SECTION III – COMPOSITION AND INFORMATION ON INGREDIENTS

Component(s)	CAS #
Water	7732-18-5
Hypochlorous Acid	7790-92-3
Sodium Hypochlorite	7681-52-9
Sodium Chloride	7647-14-5

The product contains approximately 300 ppm free available chlorine (FAC).

SECTION IV – FIRST-AID MEASURES

Skin Contact: In case of contact, flush with plenty of water. Cold water may be used. Wash clothing before reuse. Seek medical attention if skin irritation occurs.
Eye Contact: Check for and remove any contact lenses. Flush eyes with running water for at least 15 minutes with eyelids open. Cold water may be used. Seek medical attention if eye irritation occurs.
Inhalation: If inhaled, remove to fresh air. Seek medical attention if not breathing or breathing is difficult.
Ingestion: If swallowed, rinse mouth with water and drink plenty of fluids. Seek medical attention if discomfort occurs.

SECTION V – FIRE-FIGHTING MEASURES

Not Applicable, this product is Non-Flammable and Non-Explosive. No extinguishing techniques or equipment are required.

SECTION VI – ACCIDENTAL RELEASE MEASURES

In case of spill or leakages, dike spill with inert absorbent materials (e.g. sand, "oil-dry" or other commercially spill absorbents) to contain and soak spilled liquid. Place wastes into an appropriate waste disposal container.

SECTION VII – HANDLING AND STORAGE

Handling: No special handling requirements; follow use instructions on product label. Open air or good room ventilation and appropriate PPE are adequate for the safe use of this product.
Storage: Keep container tightly closed in a dry and well-ventilated place at room temperature. Avoid direct light exposure, freezing and extreme heat.

SECTION VIII – EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA PEL: Unknown. Cal/OSHA PEL:
Unknown. NIOSH REL:
Unknown. ACGIH TLV:
Unknown.

Engineering Control: None Required. Open air or good room ventilation is adequate for the safe use of this product.

Personal Protective Equipment (PPE):

Respiratory Protection: Not necessary as long as there is adequate ventilation
Protective Clothing: Not required under normal conditions of use
Hand Protection: Not required under normal conditions of use
Eye Protection: Not necessary, but good manufacturing practice recommends the use of chemical safety glasses or goggles for all applications involving chemical handling.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Clear
Odor: Slight Chlorine Odor
pH: 6.2 – 7.0
Specific Gravity (H₂O = 1 at 20°C): 1.00 – 1.06
Density: 8.34 lbs./gal
Viscosity: Comparable to Water
Boiling Point: Comparable to Water
Evaporation Rate: Comparable to Water
Solubility: Complete in Water
Flammability: Non-Flammable
Explosive Limits: Non-Explosive

SECTION X – STABILITY AND REACTIVITY

Reactivity: Not Reactive under recommended handling and storage conditions
Chemical Stability: Stable under recommended handling and storage conditions

Hazardous Reactions:	Product is Not Hazardous
Conditions to Avoid:	Direct light exposure, freezing and extreme heat
Materials to Avoid:	Strong oxidizing agents, strong acids and organic materials
Hazardous Decomposition Products:	May form under fire conditions; nature of decomposition products is unknown
Hazardous Polymerization	Will not occur

SECTION XI – TOXICOLOGICAL INFORMATION

<u>Route of Entry / Exposure:</u>	Skin Contact	Eye Contact
	Inhalation	Ingestion

Potential Acute Health Effects:

Skin Contact: No potential health effects; product is non-hazardous

Eye Contact: No potential health effects; product is non-hazardous

Inhalation: No potential health effects; product is non-hazardous

Ingestion: No potential health effects; product is non-hazardous

Potential Chronic Health Effects:

Carcinogenic Effects: Not Applicable

Mutagenic Effects: Not Applicable

Teratogenic Effects: Not Applicable

Developmental: Not Applicable

Numerical Measures of Toxicity: Unknown.

Preparation Date of Latest Revision: January 8, 2018



Safety Data Sheet

NATURAWAYS DISINFECTANT 525

SECTION I – IDENTIFICATION

Product Name: NaturaWays Disinfectant 525 | Product Number: AX 525
Product Description: Hypochlorous Acid Solution Generated Electro-Chemically from Diluted Brine
CAS Number: None (Mixture)
Recommended Use: This product is a ready-to-use, one-step cleaner and disinfectant for general cleaning and disinfecting on hard non-porous surfaces
Restricted Use: This product is not for human or animal use
Distributed by: NaturaWays, LLC
Address: 521-K Marine View Ave., Belmont, CA 94002
Number: (800) 376-0652
Chemtrec Emergency Number: (800)-424-9300
Manufactured By: Aquaox

SECTION II – HAZARDS IDENTIFICATION

HMIS Rating:

- Health = 0
- Flammability = 0
- Physical = 0
- Reactivity = 0

NFPA/HMIS Definitions

- 0 = Minimal Hazard
- 1 = Slight Hazard
- 2 = Moderate Hazard
- 3 = Serious Hazard
- 4 = Severe Hazard

Personal Protection Index: B (Eye Protection and Gloves)

Hazard Information Disclosures:

TSCA: All chemicals in this product are listed on the EPA TSCA inventory list.
CERCLA/SARA: This product does not fall under any hazardous categories under SARA Sections 311 and 312.
OSHA: This product is not a hazardous chemical as defined by the OSHA Hazard Communication Standard, 29 CFR § 1910.1200.

Product Label on Hazard Information:

- Avoid Contact with Eyes and Skin
- Wash Hands after Handling Product
- Keep out of Reach of Children

SECTION III – COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Component(s)</u>	<u>CAS #</u>
Water	7732-18-5
Hypochlorous Acid	7790-92-3
Sodium Hypochlorite	7681-52-9
Sodium Chloride	7647-14-5

The product contains approximately 575 ppm free available chlorine (FAC).

SECTION IV – FIRST-AID MEASURES

- Skin Contact: In case of contact, flush with plenty of water. Cold water may be used. Wash clothing before reuse. Seek medical attention if skin irritation occurs.
- Eye Contact: Check for and remove any contact lenses. Flush eyes with running water for at least 15 minutes with eyelids open. Cold water may be used. Seek medical attention if eye irritation occurs.
- Inhalation: If inhaled, remove to fresh air. Seek medical attention if not breathing or breathing is difficult.
- Ingestion: If swallowed, rinse mouth with water and drink plenty of fluids. Seek medical attention if discomfort occurs.

SECTION V – FIRE-FIGHTING MEASURES

Not Applicable, this product is Non-Flammable and Non-Explosive. No extinguishing techniques or equipment are required.

SECTION VI – ACCIDENTAL RELEASE MEASURES

In case of spill or leakages, dike spill with inert absorbent materials (e.g. sand, "oil-dry" or other commercially spill absorbents) to contain and soak spilled liquid. Place wastes into an appropriate waste disposal container.

SECTION VII – HANDLING AND STORAGE

- Handling: No special handling requirements; follow use instructions on product label. Open air or good room ventilation and appropriate PPE are adequate for the safe use of this product.
- Storage: Keep container tightly closed in a dry and well-ventilated place at room temperature. Avoid direct light exposure, freezing and extreme heat.

SECTION VIII – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- OSHA PEL: Unknown
- Cal/OSHA PEL: Unknown
- NIOSH REL: Unknown
- ACGIH TLV: Unknown
- Engineering Control: None Required. Open air or good room ventilation is adequate for the safe use of this product.

Personal Protective Equipment (PPE):

- Respiratory Protection: Not necessary as long as there is adequate ventilation
- Protective Clothing: Not required under normal conditions of use
- Hand Protection: Not required under normal conditions of use
- Eye Protection: Not necessary, but good manufacturing practice recommends the use of chemical safety glasses or goggles for all applications involving chemical handling

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: Liquid
- Color: Clear
- Odor: Slight Chlorine Odor
- pH: 6.2 - 7.0
- Specific Gravity (H₂O = 1 at 20°C): 1.00 – 1.06
- Density: 8.34 lbs./gal
- Viscosity: Comparable to Water
- Boiling Point: Comparable to Water
- Evaporation Rate: Comparable to Water
- Solubility: Complete in Water
- Flammability: Non-Flammable
- Explosive Limits: Non-Explosive

SECTION X – STABILITY AND REACTIVITY

Reactivity:	Not Reactive under recommended handling and storage conditions.
Chemical Stability:	Stable under recommended handling and storage conditions.
Hazardous Reactions:	Product is Not Hazardous.
Conditions to Avoid:	Direct light exposure, freezing and extreme heat.
Materials to Avoid	Strong oxidizing agents, strong acids and organic materials.
Hazardous Decomposition Products:	May form under fire conditions; nature of decomposition products is unknown.
Hazardous Polymerization	Will not occur.

SECTION XI – TOXICOLOGICAL INFORMATION

<u>Route of Entry / Exposure:</u>	Skin Contact	Eye Contact
	Inhalation	Ingestion

Potential Acute Health Effects:

Skin Contact: No potential health effects; product is non-hazardous.
Eye Contact: No potential health effects; product is non-hazardous.
Inhalation: No potential health effects; product is non-hazardous.
Ingestion: No potential health effects; product is non-hazardous.

Potential Chronic Health Effects:

Carcinogenic Effects:	Not Applicable
Mutagenic Effects:	Not Applicable
Teratogenic Effects:	Not Applicable
Developmental:	Not Applicable

Numerical Measures of Toxicity: Unknown

Preparation Date of Latest Revision: January 8, 2018