

# **Shield Disinfectant/Sanitizer**

**North Carolina Sheriffs' Association**

**“Technology Procurement Program”**

**Bid Number 22-01-0303**

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Submitted by:



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## How it Works

### EPA APPROVED

Shield Disinfectant/Sanitizer is listed on the EPA List N: Disinfectant for Use Against SARS-CoV-2, the virus that causes the novel COVID-19 disease (EPA Registration Number 92108-1-96847).

### THE MAGIC

The 'magic' behind the entire Shield Cleansers product line is not really 'magic' at all, but rather nature at its purest combined with proven science. Shield's main ingredient is hypochlorous acid, a substance found naturally in the human body, and replicated by scientists by running an electrical charge through a combination of salt and water. This electro-chemical reaction reproduced the hypochlorous acid within a solution now known as anolyte water, and paved the way for a new generation of health, healing and cleanliness.

### THE DISCOVERY

Now, to be fair, Shield was not the first to discover what nature already possesses. Anolyte water was first discovered by a French surgeon, Nobel Laureate Alexis Carrel, in cooperation with a British biochemist, Drysdale Dakin. Their time period was World War I, and their mission was to aid the soldiers wounded in battle. They used HOCl stabilized with boric acid, to flush the interior surfaces of those wounded. The solution proved effective in not only preventing sepsis, but also in accelerating the healing process, and saving countless lives.

### THE ADVANTAGE

Today, hypochlorous acid in a stabilized form is a weapon to use against the countless things that threaten the immune system of the human body, or cleanliness of the environment. Homes, works places, kids, pets, farms and food are all vulnerable to germs, bacteria, infection or disease. Hypochlorous acid is produced by the human body to fight the war on health from within, and now you have hypochlorous acid in a bottle to fight from the outside.

What is the advantage of hypochlorous acid over traditional cleaners? Most of the pathogens, particularly water born, when used over time, develop resistance to cleansers such as sodium hypochlorite (bleach). In comparison, anolyte application, as a water disinfectant, used on a daily basis over the course of ten years, demonstrated that no resistance was developed over time to pathogenic microorganisms. Hypochlorous acid is also free from harmful fumes.

### THE SCIENCE

Hypochlorous acid, in the body works to break down the cells that are creating the infection by destroying the cell membrane and its DNA, thus halting the replication or growth process.

### THE PRODUCT

All of Shield's products contain hypochlorous acid and are formulated with varying concentrations to create a full line of products effective in several areas covering wound and skin care, to household cleaning or disinfecting, vet care and first aid. Shield Disinfectant, registered by the EPA, and Shield First Aid Solution, cleared by the FDA are the two flagship products of the Shield line, and as leaders of the Shield family, can give you the assurance of our product's validity, effectiveness and guarantee for family, pets, and homes.

## Shield Disinfectant/Sanitizer

Shield Disinfectant/Sanitizer is a ready-to-use hospital-grade disinfectant. And it's the only disinfectant with a hypochlorous acid active ingredient that kills multiple drug resistant bacterium, including viruses similar to SARS-CoV-2, the virus that causes the novel COVID-19 disease. Shield Disinfectant/Sanitizer is available in a gallon size, quart bottle (32-ounce), and by the case.

Shield Disinfectant/Sanitizer is listed on the EPA List N: Disinfectant for Use Against SARS-CoV-2, the virus that causes the novel COVID-19 disease (EPA Registration Number 92108-1-96847).

### Features:

- Kills a wide range of bacteria including Staphylococcus aureus MRSA, Salmonella enterica, Pseudomonas aeruginosa
- Kills multiple drug resistant bacterium
- Virucide, Tuberculocide, Bactericide, Germicide
- Kills HIV (Aids virus)
- Deodorizes by killing the bacteria that causes odors
- Aids in the reduction of cross-contamination between treated surfaces
- No alcohol, Phenol or VOC



# Safety Data Sheet



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Version 1.0

## 1. IDENTIFICATION

### Product Identifier

**Product Name** Shield™ Disinfectant/Sanitizer

### Other means of identification

**SDS #** Shield-Dis/San-001

### **Product Code**

**UPC Code** 686754964074 Shield™ Disinfectant/Sanitizer 3.78 L  
686754964067 Shield™ Disinfectant/Sanitizer 946 ml

**Synonyms** Disinfectant, Sanitizer

### Recommended use of the chemical and restrictions on use

**Recommended Use** For Disinfecting Hard Surfaces and Sanitizing food prep areas

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Shield Products, LLC  
15612 College Blvd.  
Lenexa, KS 66219 USA  
www.shieldcleansers.com

### Emergency Telephone Number

**Company Phone Number** 1-800-440-4947  
**Emergency Telephone (24 hr)** 1-800-222-1222

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear Liquid      **Physical State** Liquid      **Odor** Faint chlorine ozone

### Classification

This product does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains no substances which at its given concentration, are considered hazardous to health. However, additional component information is available in subsequent sections of this SDS.

**Synonyms**                      Disinfectant, Sanitizer

### 4. FIRST AID MEASURES

#### First Aid Measures

- Eye Contact**      If irritation occurs, flush eyes with water.
- Skin Contact**      If irritation occurs, wash affected area with water.
- Inhalation**        If breathing problems develop, move away from product and into fresh air.
- Ingestion**        Drink an 8 oz. glass of water.

#### Most important symptoms and effects

**Symptoms**        Under normal use conditions the likelihood of any adverse health effect is low. Inhalation of product vapors or fumes is the most common route of exposure in occupational settings.

#### Indication of any immediate medical attention and special treatment needed

**Notes to Physician**      None Applicable but treat symptomatically

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**      Product is not flammable or explosive- not applicable.

**Unsuitable Extinguishing Media**      Product is not flammable or explosive- not applicable.

#### Specific Hazards Arising from the Chemical

Not Determined

#### Protective equipment and precautions for firefighters

None needed as product is not flammable or explosive.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

**Personal Precautions**      No personal protective equipment is required under normal conditions.

#### Methods and material for containment and cleaning up

**Methods for Containment and Methods for Clean-up**      Product is  $\leq 0.9\%$  sodium chloride (salt) solution and  $\leq 0.05\%$  available chlorine. Some localities allow such concentrations to be sent to open storm sewers. However, local environmental regulatory requirements should be followed. If desired, spills can be washed to sewer with plenty of water, or neutralized using sodium sulfite or sodium thiosulfate.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well ventilated place.

**Incompatible Materials** Acids and Hydrogen Peroxide

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriated engineering controls

**Engineering Controls** Under normal conditions, none is required. Provide general and/or local exhaust ventilation to maintain a comfortable environment during showers, and at eyewash stations.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Under normal conditions, not required.

**Skin and Body Protection** None required under normal use.

**Respiratory Protection** Not required under normal use conditions.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid		
<b>Appearance</b>	Clear Liquid	<b>Odor</b>	Faint chlorine ozone odor
<b>Color</b>	Clear	<b>Odor Threshold</b>	Not determined
<b>Property</b>		<b>Values</b>	<b>Remarks – Method</b>
<b>pH</b>		5.0 - 6.8	
<b>Melting Point/Freezing Point</b>		0° C / 32° F	
<b>Boiling Point/Boiling Range</b>		100° C / 212° F	
<b>Flash Point</b>		Non-flammable	
<b>Evaporation Rate</b>		0.3	Comparable to water
<b>Flammability (Solid, Gas)</b>		Liquid-Not applicable	
<b>Upper Flammability Limits</b>		Not Determined	
<b>Lower Flammability Limit</b>		Not Determined	
<b>Vapor Pressure</b>		Not Determined	
<b>Vapor Density</b>		Not Available	
<b>Specific Gravity</b>	1.00	1.06 g/ml or 8.34 lbs/gal	
<b>Water Solubility</b>		100% soluble	

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<u>Property</u>	<u>Values</u>	<u>Remarks – Method</u>
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not considered to be an explosive hazard	
Oxidizing Properties	Not determined	

## 10. STABILITY AND REACTIVITY

<b><u>Reactivity</u></b>	Reactive to acid products and hydrogen peroxide.
<b><u>Chemical Stability</u></b>	Stable under recommended storage conditions.
<b><u>Possibility of Hazardous Reactions</u></b>	
<b><u>Hazardous Polymerization</u></b>	Will not undergo hazardous polymerization.
<b><u>Conditions to Avoid</u></b>	Avoid accidental contact of product with acids and hydrogen peroxide.
<b><u>Incompatible Materials</u></b>	Acids and Hydrogen Peroxide.
<b><u>Hazardous Decomposition Products</u></b>	None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b><u>Eye Contact</u></b>	Avoid contact with eyes.
<b><u>Skin Contact</u></b>	Not expected to be a skin irritant during labeled use.
<b><u>Inhalation</u></b>	If breathing problems develop, move away from product and into fresh air.
<b><u>Ingestion</u></b>	Do not ingest.

### Component Information

<b>Chemical Name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Water 7732-18-5 ≥ 99% Hypochlorous Acid 7790-92-3 ≤ 0.05%	1.26- 2.0 g/kg (Rat) Note: Chlorine levels	1.26- 2.0 g/kg (Rat) Note: Chlorine levels	Not Applicable

### Information on physical, chemical and toxicological effects

<b><u>Symptoms</u></b>	Please see Section 4 of this SDS for symptoms.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b><u>Carcinogenicity</u></b>	Based on information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
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**Numerical measures of toxicity** Not determined

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not classified as environmentally hazardous.

### Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Water 7732-18-5 ≥ 99%	None	None	None	None
Hypochlorous Acid 7790-92-3 ≤ 0.05%				

**Persistence/Degradability**      None

**Bioaccumulation**                      Not determined

**Mobility**                                      Not determined

**Other Adverse Effects**                  Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

**Disposal of Wastes**      Product is ≤0.9% sodium chloride (salt) solution and ≤0.05% available chlorine. Some localities allow such concentrations to be sent to open storm sewers. However, local environmental regulatory requirements should be followed. If desired, spills can be washed to sewer with plenty of water, or neutralized using sodium sulfite or sodium thiosulfate.

**Contaminated Packaging**      Disposal should be in accordance with applicable regional, national and local laws and regulation.

## 14. TRANSPORT INFORMATION

**Note**                      Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**                      Not regulated

**IATA**                      Not regulated

**IMDG**                      Not regulated

## 15. REGULATORY INFORMATION

**International Inventories**      All ingredients are listed or exempt from listing on Chemical Substance Inventory.

### **Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECS - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemical and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances



**US Federal Regulations**

**CERCLA**

This material as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of Code of Federal Regulations, Part 372.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations.

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b> 0	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special Hazards</b> Not Determined
<b><u>HMIS</u></b>	<b>Health Hazards</b> Not Determined	<b>Flammability</b> Not Determined	<b>Physical Hazards</b> Not Determined	<b>Special Hazards</b> Not Determined

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**Revision Note:** NA

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process unless specified in the text.

End of Safety Data Sheet