

# Safety Data Sheet

## GHS-Compliant

May be used to comply with  
OSHA's Hazard Communication Standard  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements



<b>PRODUCT IDENTITY</b> <b>Crystal Aqua Chlorinating Solution</b>	Safety Data Sheet Revision Date - <b>January 20, 2021</b>
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### Section 1 - Identification

<b>Product Name</b> Sodium Hypochlorite	<b>Cas #</b> 7681-52-9
<b>Synonym</b> Chlorinator	<b>Chemical Formula</b> NaOCl
<b>Chemical Name</b> Sodium Hypochlorite	<b>Chemical Family</b> Inorganic Halogen Compound
<b>Product Use</b> Water treatment (chlorination)	
<b>Manufacturer/Supplier Name</b> Bison Laboratories, Inc.	<b>Address</b> 100 Leslie Street, Buffalo, NY 14211-1621
<b>General Information</b> 1-716-895-2707	<b>Country</b> USA
<b>Emergency Telephone</b> 1-716-895-2707	<b>Transportation Emergency Number</b> <b>CHEMTREC</b> 1-800-424-9300

### Section 2 - Hazards Identification

#### GHS Classification:

<b>HEALTH</b>	<b>PHYSICAL</b>
Skin corrosion/irritation - Category 1	Corrosive to metals - Category 1
Serious eye damage/eye irritation - Category 1	
Specific target organ toxicity, single exposure - Category 3 respiratory tract irritation	<b>ENVIRONMENTAL HAZARDS</b>
	Hazardous to the aquatic environment, acute hazard - Category 1
	Hazardous to the aquatic environment, long-term hazard - Category 2

#### GHS Label Elements:

**SYMBOLS:** corrosive, irritant, hazardous to the aquatic environment



**Signal Word: DANGER**

## Section 2 - Hazards Identification (continued)

### GHS Label:

#### *Hazard Statements*

May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

#### *Precautionary Statements (continued)*

Immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.

#### *Precautionary Statements*

**Prevention** - Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep only in original container. Avoid release to the environment.

**Storage** - Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

**Disposal** - Dispose of contents/container in accordance with local/regional/national/international regulations.

**Response** - If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin or hair: Take off

## Section 3 - Composition/Information on Ingredients

Component Description	Percent	CAS #
Sodium Hypochlorite	5 - 17	7681-52-9
Sodium Hydroxide	0.10 - 4.25	1310-73-2

## Section 4 - First Aid Measures

### General

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this Safety Data Sheet to the doctor in attendance.

### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

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**Section 4 - First Aid Measures (continued)**

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**Eye Contact**

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

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**Skin Contact**

Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15 - 20 minutes. Get medical attention immediately. Wash contaminated clothing before reuse. Call a physician or poison control center immediately.

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**Ingestion**

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get in the lungs.

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**Indication of immediate medical attention and special treatment needed**

Treat symptomatically. Chemical burns: flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. With eye exposure, continue flushing during transport to hospital.

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**Most important symptoms/effects, acute and delayed**

Corrosive effects. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result.

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**Section 5 - Fire Fighting Measures**

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**Suitable Extinguishing Method**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>). Do not use water jet, as this will spread the fire. Do not use dry extinguishing media that contains ammonium compounds.

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**Specific and/or Unusual Fire and Explosion Hazards**

During fire, gases hazardous to health may be formed. No unusual fire or explosion hazards noted.

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**Special Firefighting Procedures**

In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials.

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**Section 6 - Accidental Release Measures**

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**Steps to be Taken in Case Material is Released or Spilled**

Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see Section 8 of the SDS.

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**Environmental Precautions**

Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.

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## Section 6 - Accidental Release Measures (continued)

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### Methods and materials for containment and cleaning up

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

**Small spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

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## Section 7 - Handling and Storage

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### Precautions for Safe Handling

Wear appropriate personal protective equipment. Do not get in eyes, on skin or clothing. Use with adequate ventilation. Observe good industrial hygiene practices. Do not apply heat or direct sunlight. Temperature and product concentration affect product quality and decomposition rates.

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### Conditions for Safe Storage

Keep container tightly closed. Store in a cool and well ventilated place. Store in a corrosive resistant container. Consult container manufacturer for additional guidance.

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### Precautions to be Taken in Handling and Storage

Store away from and do not mix with incompatible materials such as acids, oxidizers, organics, reducing agents and all metals except titanium.

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## Section 8 - Exposure Controls / Personal Protection

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### EXPOSURE LIMITS

Substance	PEL	STEL	CEILING
sodium hydroxide (CAS 1310-73-2)	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
sodium hypochlorite (CAS 7681-52-9)		2 mg/m <sup>3</sup>	

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N/D - No Data Available

C = Ceiling Level

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### Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

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### Skin Protection

Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Reports indicate that sodium hypochlorite can react with various fabrics usually increasing with concentration. Reactions vary significantly depending on strength of chemical, material, fabric treatment and color of dyes. FRC treated cotton has a stronger response than plain cotton. Poly blend fabrics and meta aramid fabric have a weaker response than natural fibers. Contact the Personal Protective Equipment manufacturer for specific information about their products.

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### Eye Protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

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**Section 9 - Physical and Chemical Properties**

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<b>Boiling Point</b> 230° F (110° C)	<b>Specific Gravity</b> 1.22
<b>Vapor Pressure (mm Hg)</b> 12 mm Hg (20° C / 68° F)	<b>Freezing Point</b> -3° to -14° F (-19.4° to -25.6° C)
<b>Vapor Density (AIR = 1)</b> not available	<b>Density</b> 9.9 - 10.5 lbs/gallon
<b>Solubility in Water</b> completely miscible	
<b>Appearance and Odor</b> clear, colorless to yellow liquid with characteristic bleach odor	

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**Section 10 - Stability and Reactivity**

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Stability	Unstable		<b>Conditions to Avoid</b> Contact with incompatible materials. Avoid ultraviolet (UV) light sources.
	Stable	X	Excessive heat. Reacts violently with strong acids. Acid contact will produce chlorine gas. Amine contact will produce chloramines.

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**Incompatibility (Materials to Avoid)**

Strong oxidizing agents

Acids

Metals

Organic compounds

Ammonia

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**Hazardous Decomposition or By-Products**

none known

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Hazardous Polymerization	May Occur		<b>Conditions to Avoid</b>
	Will not Occur	X	

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**Section 11 - Toxicology Information**

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<b>Route(s) of Exposure</b>	<b>Inhalation?</b>	<b>Skin?</b>	<b>Ingestion?</b>
	Yes	Yes	Yes

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**Health Hazards (Acute and Chronic)**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Vapors and spray mist may irritate throat and respiratory system and cause coughing. Causes skin and eye burns.

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<b>Carcinogenicity:</b>	<b>NTP?</b>	<b>IARC Monographs?</b>	<b>OSHA Regulated?</b>
	No	No	No

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**Signs and Symptoms of Exposure**

Corrosive effects. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result.

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**Toxicology**

Sodium Hypochlorite 5 - 17% (CAS mixture)

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**Dermal (Rabbit)**

LD50 >2 g/kg

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**Oral (Rat)**

LD50 3 - 5 g/kg

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**Mutagenic Effects**

No data available to indicate product or any components present at >0.1% are mutagenic or genotoxic.

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**Section 12 - Ecological Information**

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**Ecological Toxicity**

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

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<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Sodium Hypochlorite 5 - 17% (CAS mixture)		
<b>Aquatic</b>		
Crustacea	LC50 Daphnia	1 mg/l
Fish	LC50 Bluegill (Lepomis Macrochirus)	0.6 mg/l, 48 hours

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**Other Adverse Effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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**Section 13 - Disposal Considerations**

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**Disposal instructions** - Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as a hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

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**Hazard Waste Code** - The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

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**Section 13 - Disposal Considerations (continued)**

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**Waste from residues/unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues.

This material and its container must be disposed of in a safe manner (see: Disposal instructions).

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**Contaminated Packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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**Section 14 - Transportation Information**

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**14.1 Inside containers 1.3 gallons or less.**

14.1.1 **DOT Classification:** Shipped as a limited quantity per 49 CFR 173.154(b)

14.1.2 **DOT Hazard Class:**

14.1.3 **Marking:**

14.1.4 **Marine Pollutant:** Not listed in Appendix B of the Hazardous Material Table

14.1.5 **Deposit Container** RESIDUE: LAST CONTAINED CONSUMER

**Returns:** COMMODITY ORM-D, PGIII

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**14.2 Inside containers or single containers exceeding 1.3 gallons.**

14.2.1 **DOT Classification:** Hypochlorite Solutions

14.2.2 **DOT Hazard Class:** 8, UN1791, PGIII

14.2.3 **Label:** Corrosive 8

14.2.4 **Deposit Container** RESIDUE: LAST CONTAINED, UN1791,

**Returns:** HYPOCHLORITE SOLUTIONS, 8, PGIII

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14.3 **Reportable Quantity (RQ):** 100 lb (45.4 kg) or 80 gallons (based on 12.5% active ingredient)

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**Section 15 - Regulatory Information**

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**U. S. Federal Regulations****Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) :**

Sodium Hydroxide CAS 1310-73-2 Listed

Sodium Hypochlorite CAS 7681-52-9 Listed

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**Toxic Substances Control Act (TSCA) :**

Not regulated

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**US OSHA Specifically Regulated Substances (29 CFR 1910.1001 - 1050)**

Not listed

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**Safe Drinking Water Act (SDWA) :**

Not regulated

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**Clean Air Act (CAA) :**

Not regulated

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**Superfund Amendments and Reauthorization Act (SARA) Title III Information:**

Immediate hazard - yes. Delayed hazard - no, Fire hazard - no, Pressure hazard - no, Reactivity hazard - no.

SARA 302 - not listed. SARA 311/312 Hazard Chemical - yes. SARA 313 (TRI Reporting) - not regulated.

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**Section 15 - Regulatory Information (continued)**

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**State Regulations****California Safe Drinking Water Act (Prop 65) Listing:**

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

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**Rhode Island Right to Know Act:**

Chemical Name: Sodium Hydroxide CAS # 1310-73-2

Chemical Name: Sodium Hypochlorite CAS # 7681-52-9

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**New Jersey Right to Know Act:**

Chemical Name: Sodium Hydroxide CAS # 1310-73-2

Chemical Name: Sodium Hypochlorite CAS # 7681-52-9

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**Massachusetts Right to Know Act Substance List (MSL):**

Chemical Name: Sodium Hydroxide CAS # 1310-73-2

Chemical Name: Sodium Hypochlorite CAS # 7681-52-9

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**Pennsylvania Right to Know Act Hazardous Substance List:**

Chemical Name: Sodium Hydroxide CAS # 1310-73-2

Chemical Name: Sodium Hypochlorite CAS # 7681-52-9

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**International Inventories**

<b>Country(s) or Region</b>	<b>Inventory Name</b>	<b>On Inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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**Canadian WHMIS Regulation (Workplace Hazardous Materials Information System):**

Classification: E (Corrosive Materials)

Health effects criteria met by this chemical: E - corrosive to skin ; E - TDG class 8 - corrosive substance

Ingredient Disclosure List: included for disclosure at 1% or greater

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