

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 08/22/2019

Version: 1.0

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Product Identifier

Product Form: Mixture Product Name: Water Shock

Product Code: 971XX

Intended Use of the Product

Water treatment

Name, Address, and Telephone of the Responsible Party

Company Star brite[®] Inc.

4041 SW 47th Avenue Fort Lauderdale, FL 33314 (800) 327-8583 www.starbrite.com

Emergency Telephone Number

Emergency Number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture GHS-US/CA Classification Skin Corr. 1B H314

SKIII COIT. 1B	П314	
Eye Dam. 1	H318	
STOT RE 2	H373	
Full text of hazard classe	es and H-statement	ts : see section 16
Label Elements		
GHS-US/CA Labeling		
Hazard Pictograms (GH	S-US/CA) :	HSOS GHSOS
Signal Word (GHS-US/C	: A) :	: Danger
Hazard Statements (GH	S-US/CA)	: H314 - Causes severe skin burns and eye damage.
		H318 - Causes serious eye damage.
		H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary Stateme	nts (GHS-US/CA) :	: P260 - Do not breathe mist, spray, vapors, fume.
		P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
		P280 - Wear protective gloves, protective clothing, and eye protection.
		P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
		P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for
		breathing.
		P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove
		contact lenses, if present and easy to do. Continue rinsing.
		P310 - Immediately call a POISON CENTER or doctor.
		P314 - Get medical advice/attention if you feel unwell.
		P321 - Specific treatment (see section 4 on this SDS).
		P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage. P405 - Store locked up.

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P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 1H400H400 - Very toxic to aquatic life.P273 - Avoid release to the environment.



Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contact with strong acids liberates toxic chlorine dioxide gas. If distilled to dryness the dust/powder of this material is corrosive and oxidizing, which may ignite upon contact with combustible materials.

Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Sodium chlorite	Chlorous acid, sodium salt / Chlorite (sodium salt) / Chlorous acid, sodium salt (1:1) / Chlorite / SODIUM CHLORITE	(CAS-No.) 7758-19-2	0.6375 - 3.15	Ox. Sol. 1, H271 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 3, H412

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Using proper respiratory protection, immediately move the exposed person to fresh air. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

Skin Contact: Immediately remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Get immediate medical advice/attention.

Eye Contact: Immediately rinse with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. May cause damage to organs through prolonged or repeated exposure.

Inhalation: May be corrosive to the respiratory tract. May cause delayed pulmonary edema.

Skin Contact: Causes severe irritation which will progress to chemical burns.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

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Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion of sodium chlorite may result in methemoglobinemia, hemolysis, and glutathione depletion. This compound reacts similarly to chlorate and produces a G6PD deficiency. Methylene blue can be used, but may not be effective for treatment. Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly shock.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand. If ingested, this product causes methemoglobinemia. Methylene blue can be used, but may not be effective for treatment.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures. If distilled to dryness the dust/powder of this material is oxidizing, and may ignite upon contact with combustible materials.

Explosion Hazard: Product is not explosive.

Reactivity: In the presence of acids, chlorine dioxide gas may form. May react with ammonia to produce ammonium chlorite, a shock-sensitive compound. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction. Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. **Hazardous Combustion Products**: Chlorine. Chlorine compounds. Sodium oxides. Corrosive vapors.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Avoid letting the product become dry. Cautiously neutralize spilled liquid. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

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SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: May release corrosive vapors. Ingestion of sodium chlorite may result in methemoglobinemia, hemolysis, and glutathione depletion. This compound reacts similarly to chlorate and produces a G6PD deficiency. Methylene blue can be used, but may not be effective for treatment. Contact with strong acids liberates toxic chlorine dioxide gas. If distilled to dryness the dust/powder of this material is corrosive and oxidizing, which may ignite upon contact with combustible materials. Mixing with ammonia, acids, detergents, organic matter or other incompatible materials may release chlorinated compounds which are irritating to the eyes and respiratory system.

Precautions for Safe Handling: Do not breathe mist, spray, vapors, fume. Do not get in eyes, on skin, or on clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle empty containers with care because they may still present a hazard. Use appropriate personal protective equipment (PPE). Do not allow contact with incompatible materials (see section 10).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool and well-ventilated place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container. Store locked up/in a secure area.

Incompatible Materials: Acids. Reducing agents. Oxidizers. Combustible materials. Organic materials. Ammonia. Sulfur compounds. Ammonium salts. Cyanide. Metallic powders.

Specific End Use(s)

Water treatment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Exposure Controls: Avoid release to the environment.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on	Basic Physical and	Chemical Properties

Physical State	:	Liquid
Appearance	:	Clear
Odor	:	Characteristic
Odor Threshold	:	Not available

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рН	:	11.7
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available
Boiling Point	:	Not available
Flash Point	:	Not available
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20°C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	1
Solubility	:	Water: Soluble
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available

SECTION 10: STABILITY AND REACTIVITY

<u>Reactivity</u>: In the presence of acids, chlorine dioxide gas may form. May react with ammonia to produce ammonium chlorite, a shock-sensitive compound. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction. Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

<u>Chemical Stability</u>: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

<u>Conditions to Avoid</u>: Direct sunlight, extremely high or low temperatures, and incompatible materials. Do not allow product to dry out.

Incompatible Materials: Acids. Reducing agents. Oxidizers. Combustible materials. Organic materials. Ammonia. Sulfur compounds. Ammonium salts. Cyanide. Metallic powders.

Hazardous Decomposition Products: Thermal decomposition generates: Corrosive vapors. Chlorine.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product Acute Toxicity (Oral): Not classified Acute Toxicity (Dermal): Not classified Acute Toxicity (Inhalation): Not classified LD50 and LC50 Data: Not available Skin Corrosion/Irritation: Causes severe skin burns and eye damage. **pH:** 11.7 Eye Damage/Irritation: Causes serious eye damage. pH: 11.7 Respiratory or Skin Sensitization: Not classified Germ Cell Mutagenicity: Not classified Carcinogenicity: Not classified Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure. Reproductive Toxicity: Not classified Specific Target Organ Toxicity (Single Exposure): Not classified Aspiration Hazard: Not classified Symptoms/Injuries After Inhalation: May be corrosive to the respiratory tract. May cause delayed pulmonary edema. Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns. Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

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Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion of sodium chlorite may result in methemoglobinemia, hemolysis, and glutathione depletion. This compound reacts similarly to chlorate and produces a G6PD deficiency. Methylene blue can be used, but may not be effective for treatment. Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly shock.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Sodium chlorite (7758-19-2)		
LD50 Oral Rat	165 mg/kg	
LD50 Dermal Rabbit	107.2 mg/kg	
LC50 Inhalation Rat	230 mg/m ³ (Exposure time: 4 h)	
LC50 Inhalation Rat	0.23 mg/l/4h	
Sodium chlorite (7758-19-2)		
IARC Group	3	
SECTION 12: ECOLOGICAL INFORMATION		

SECTION 12: ECOLOGICAL INFORMATION

<u>Toxicity</u>

Ecology - General: Very toxic to aquatic life.

Sodium chlorite (7758-19-2)	
C50 Fish 1 100 - 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])	
EC50 Daphnia 1 0.026 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
LC50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	0.25 - 0.33 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])
Persistence and Degradability	
Water Shock	
Persistence and Degradability	Not established.
Bioaccumulative Potential	
Water Shock	
Bioaccumulative Potential	Not established.
Mobility in Soil	
Water Shock	
Ecology - Soil	Not established.
Other Adverse Effects	

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In Accordance with DOT

Proper Shipping Name	: CHLORITE SOLUTION
Hazard Class	: 8
Identification Number	: UN1908
Label Codes	: 8



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Water Shock	
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Packing Group	: 11
Marine Pollutant	: Yes
ERG Number	: 154
Limited Quantity	 This product is excepted from labeling, specification packaging, shipping paper, and placarding requirements when shipped in inner packagings not over 1L, each package in strong outer packaging under 30kg, unless shipped by aircraft or vessel.
In Accordance with IMDG	
Proper Shipping Name	: CHLORITE SOLUTION
Hazard Class	: 8
Identification Number	: UN1908
Label Codes	: 8
Packing Group	:
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Marine pollutant	: Yes
In Accordance with IATA	
Proper Shipping Name	: CHLORITE SOLUTION
Hazard Class	: 8
Identification Number	: UN1908
Label Codes	: 8
Packing Group	: 11
ERG Code (IATA)	: 8L
In Accordance with TDG	
Proper Shipping Name	: CHLORITE SOLUTION
Hazard Class	: 8
Identification Number	: UN1908
Label Codes	: 8
Packing Group	: 11
Marine Pollutant (TDG)	: Yes

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Water Shock		
SARA Section 311/312 Hazard Classes Health hazard - Specific target organ toxicity (single or repeated exposure)		
	Health hazard - Serious eye damage or eye irritation	
	Health hazard - Skin corrosion or Irritation	

Sodium chlorite (7758-19-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Sodium chlorite (7758-19-2)			
U.S Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)			
U.S Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1			
U.S Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2			
U.S Massachusetts - Oil & Hazardous Material List - Reportable Quantity			
U.S Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1			
U.S Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2			
RTK - U.S Massachusetts - Right To Know List			
U.S Minnesota - Chemicals of High Concern			
RTK - U.S New Jersey - Right to Know Hazardous Substance List			
U.S California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups			

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

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U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Sodium chlorite (7758-19-2)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest	: 08/22/2019
Revision	
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA
	Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products
	Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Ox. Sol. 1	Oxidizing solids Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H271	May cause fire or explosion; strong oxidizer
H301	Toxic if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H330	Fatal if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects
	3 - Materials that, under emergency conditions, can cause serious or permanent injury.
FPA Fire Hazard :	0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. 1 - Materials that in themselves are normally stable but can
	become unstable at elevated temperatures and pressures.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)