Star Chlor

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Issue date: 08/10/2020 Revision date: 08/10/2020 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Star Chlor

EPA Registration #: 813-16-65001

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Disinfectant/Sanitizer

1.3. Supplier

Manufacturer
Five Star Chemicals & Supply Inc
6870 W. 52nd Ave. Suite 205
Arvada, CO 80002
T (303)287-0186

1.4. Emergency telephone number

Emergency number : 800-535-5035 (Infotrac)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Met. Corr. 1

Skin Corr. 1

Eye Dam. 1

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : May be corrosive to metals
Causes severe skin burns and eye damage

Precautionary statements (GHS US) : Keep only in original container.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wear eye protection, protective gloves.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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 or doctor.
Absorb spillage to prevent material-damage.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Contact with acids liberates toxic gas.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Sodium hypochlorite	(CAS-No.) 7681-52-9	10 – 15
Sodium hydroxide	(CAS-No.) 1310-73-2	0.5 – 2

***Chemical name, CAS number and/or exact concentration have been withheld as a trade secret**

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.

First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

First-aid measures after eye contact : 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 or doctor.

First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Causes burns to the respiratory system.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder. Water spray.

Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Hydrogen chloride. chlorine.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Other information : Contact with metallic substances may release flammable hydrogen gas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Absorb spillage to prevent material-damage. Provide ventilation. Never return spills in original containers for possible later re-use.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Keep away from heat and direct sunlight.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse.. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Keep only in original container. Store in a cool, well-ventilated place. Store in corrosive resistant container with a resistant inner liner. Keep away from incompatible materials. Store locke up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hypochlorite (7681-52-9)	
USA - AIHA - Occupational Exposure Limits	
WEEL STEL (mg/m³)	2 mg/m³ (15-min. STEL)
Sodium hydroxide (1310-73-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH Ceiling (mg/m³)	2 mg/m³
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (mg/m³)	2 mg/m³
USA - IDLH - Occupational Exposure Limits	
US IDLH (mg/m³)	10 mg/m³
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (ceiling) (mg/m³)	2 mg/m³
US-NIOSH chemical category	SK: DIR(COR) Apr 2011

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear.
Color	:	Pale yellow, Green
Odor	:	Pungent, chlorine
Odor threshold	:	No data available
pH	:	12 – 13
Melting point	:	No data available
Freezing point	:	7 °F (-13.9 °C)
Boiling point	:	Decomposes above 230 °F (110 °C)
Flash point	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not flammable.
Vapor pressure	:	17.5 mm Hg (@ 20 °C)
Relative vapor density at 20 °C	:	No data available
Relative density	:	1.2 – 1.4
Solubility	:	completely soluble.
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use. May be corrosive to metals.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials. Acid contact will produce chlorine gas.

10.5. Incompatible materials

Oxidizers. metals. Acids. ammonia. Organic compounds. Urea

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Hydrogen chloride. chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Sodium hypochlorite (7681-52-9)	
LD50 oral rat	8.91 g/kg
LD50 dermal rabbit	> 10000 mg/kg
ATE US (oral)	8910 mg/kg body weight

Sodium hydroxide (1310-73-2)	
LD50 oral rat	325 mg/kg
LD50 dermal rabbit	1350 mg/kg
ATE US (oral)	325 mg/kg body weight
ATE US (dermal)	1350 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns.
pH: 12 – 13

Serious eye damage/irritation : Causes serious eye damage.
pH: 12 – 13

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Sodium hypochlorite (7681-52-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Sodium hydroxide (1310-73-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : Causes burns to the respiratory system.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Sodium hypochlorite (7681-52-9)	
LC50 fish 1	0.06 – 0.11 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.033 – 0.044 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	4.5 – 7.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Sodium hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	40 mg/l

12.2. Persistence and degradability

Star Chlor	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Star Chlor	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

UN-No.(DOT) : UN1791

Proper Shipping Name (DOT) : Hypochlorite solutions

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : III

Hazard labels (DOT) :

Marine pollutant : Yes (IMDG only)

Transport by sea

Transport document description (IMDG) : UN 1791 HYPOCHLORITE SOLUTION, 8, III, MARINE POLLUTANT

UN-No. (IMDG) : 1791

Proper Shipping Name (IMDG) : HYPOCHLORITE SOLUTION

Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : III - substances presenting low danger

Limited quantities (IMDG) : 5 L

Hazard labels (IMDG) :

Marine pollutant : Yes (IMDG only)

Air transport

Transport document description (IATA) : UN 1791 Hypochlorite solution, 8, III

UN-No. (IATA) : 1791

Proper Shipping Name (IATA) : Hypochlorite solution

Class (IATA) : 8 - Corrosives

Packing group (IATA) : III - Minor Danger

Hazard labels (IATA) :

SECTION 15: Regulatory information

15.1. US Federal regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to cetain labeling requirements under federal pesticide law. These requirements differ form the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

DANGER.
Corrosive. May cause severe skin irritation or chemical burns to broken skin. Causes eye damage. Do not get in eyes, on skin or on clothing. Wear safety glasses, goggles or face shield and rubber gloves (PVC or Nitrile) when handling this product. Wash with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Issue date	:	08/10/2020
Revision date	:	08/10/2020
Other information	:	None.

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