

COYNE CHEMICAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: Sodium Hypochlorite Solution

Recommended use of the chemical and restrictions on use:

Supplier: Coyne Chemical
3015 State Road
Croydon, PA 19021
Telephone: +1 (215) 785-3000

Emergency Phone: For Chemical Emergency
Spill, Leak, Fire, or Accident
Call **CHEMTREC** Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

SDS Date of Preparation: 1/22/2015

2. HAZARDS IDENTIFICATION

GHS Classification:

Physical:	Health:	Environmental
None	Eye Corrosion Category 1 Skin Corrosion Category 1B	Aquatic Acute Toxicity Category 2

GHS Label Elements:

Danger!



Statements of Hazard

H314 Causes severe skin burns and eye damage.
H401 Toxic to aquatic life.
EUH031 Contact with acids liberates toxic gas.

Prevention

P260 Do not breathe mist, vapors, or spray.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protections and face protection.
P391 Collect spillage.
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.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

or shower.

P310 Immediately call a POISON CENTER or doctor.

P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 Immediately call a POISON CENTER or doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor.

P405 Store locked up.

P501 Dispose of contents and container in accordance with local and national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Water	7732-18-5	84.37-88.13%
Sodium Hypochlorite	7681-52-9	11.87-15.63%
Sodium Chloride	7647-14-5	>1%
Carbonic Acid Sodium Salt	497-19-8	>1%
Sodium Hydroxide	1310-73-2	1%

4. FIRST AID MEASURES

Eye: Immediately flush eyes with plenty of water for at least 20 minutes while holding the eyelids apart. Get immediate medical attention.

Skin: Immediately flush skin with plenty of water for 30 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes).

Ingestion: Do NOT induce vomiting. If conscious, give large quantities of water or milk. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

Inhalation: Immediately remove victim to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

Most important Symptoms: Causes severe eye and skin irritation and burns. If swallowed, may cause burns to mouth, throat, and stomach. May be fatal if swallowed in large amounts. Inhalation of mists may cause severe irritation and burns to respiratory tract.

Indication of immediate medical attention/special treatment: Immediate medical attention is required for eye, skin contact, and ingestion.

5. FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Do not use Mono Ammonium Phosphate (MAP) type extinguishers directly on this product.

Specific hazards arising from the chemical: Sodium hypochlorite decomposes and releases oxygen when heated, which may increase the intensity of an existing fire. Decomposition products may cause containers to rupture or explode. Thermal decomposition yields oxygen, hydrogen chloride, acids fumes, toxic and corrosive chlorine gas.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water spray. Avoid releases to the environment.

Explosion Data (sensitivity to mechanical impact or static discharge): Not explosive.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Evacuate spill area and keep unprotected personnel away. Do not breathe vapors or mists. Ventilate area. Prevent contact with the eyes, skin and clothing. Wear appropriate protective clothing. Keep away from heat, flames and high temperatures. Avoid releases to the environment.

Methods and Materials for Containment and Cleaning Up: Stop flow if possible. Dike area and contain. Collect using an inert absorbent material and place in appropriate containers for disposal. Do not use combustible materials such as sawdust. Report releases as required by local, state and federal authorities.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Prevent contact with the eyes, skin and clothing. Do not breathe vapors or mists. Wear protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Wash clothing before re-use. If closed containers become heated, vent to release decomposition products (mainly oxygen under normal decomposition).

Always add acid to water- not water to acid. Adding water to acid generates heat and will cause dangerous boiling and splashing.

Do not reuse containers. Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including Any Incompatibilities: Store in a cool, dry, well ventilated area away from incompatible materials. Keep container tightly closed. Store in air-tight, acid proof containers at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Water	None Established
Sodium Hypochlorite	2 mg/m ³ STEL AIHA WEEL 1 ppm Ceiling OSHA PEL (as Chlorine) 0.5 ppm TWA, 1 ppm STEL ACGIH TLV (as Chlorine)
Sodium Chloride	1 ppm Ceiling OSHA PEL (as Chlorine) 0.5 ppm TWA, 1 ppm STEL ACGIH TLV (as Chlorine)
Carbonic Acid Sodium Salt	None Established
Sodium Hydroxide	2 mg/m ³ Ceiling ACGIH TLV 2 mg/m ³ TWA OSHA PEL

Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

Respiratory Protection: In operations where exposure levels are excessive, an approved respirator with acid gas cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Impervious gloves such as rubber, neoprene or vinyl are recommended.

Eye Protection: Chemical safety goggles or faceshield should be worn where splashing is possible.

Other: Impervious coveralls, apron and boots is required to prevent skin contact and contamination of personal clothing. A safety shower and eye wash should be available in the immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Colorless to light yellow-green liquid with chlorine odor.

Physical State: Liquid	Odor Threshold: 0.9 ppm approximate
Vapor Density: 1	Initial Boiling Point/Range: Decomposes above 230°F (110°C)
Solubility In Water: Soluble	Vapor Pressure: 12.1 mmHg @ 68°F (20°C)
Relative Density: 1.190-1.215	Evaporation Rate: Not determined
Melting/Freezing Point: -14°F (-25.56°C) Approximately	pH: 12 @ 100 g/L
VOC Content: 0%	Octanol/Water Coefficient: Not determined
Solubility: Soluble in water	Decomposition Temperature: >230°F (110°C)
Viscosity: Not determined	Flammability (solid, gas): Not applicable
Flashpoint: None	Autoignition Temperature: None
Flammable Limits: LEL: Not applicable UEL: Not applicable	

10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive

Chemical Stability: Stable under normal storage and handling conditions. Slowly decomposes on contact with air. Decomposition rate increases with temperature, concentration, exposure to sunlight and contamination by metals.

Possibility of Hazardous Reactions: Will not occur under normal storage and handling conditions. Will react violently with many organic compounds including greases, oils, fuels, ect.

Conditions to Avoid: Keep away from heat, flames and high temperatures.

Incompatible Materials: Strong oxidizers, heavy metals, reducing agents, organics, ether, ammonia, and acids.

Hazardous Decomposition Products: When heated to decomposition emits oxygen, hydrogen chloride, acids fumes, toxic and corrosive chlorine gas.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

Eye: Causes severe irritation and burns with pain, tearing, and redness. May cause permanent eye damage, vision impairment, and blurred vision.

Skin: Causes severe irritation and burns with redness, ulceration, pain and dermatitis. Prolonged skin exposure may cause destruction of the skin with impairment of the skin to regenerate at the site of contact.

Ingestion: Ingestion causes severe digestive tract irritation or burns to the mucous membranes of the mouth and esophagus with abdominal pain, nausea, vomiting, diarrhea, confusion, delirium and coma. Ingestion may be fatal.

Inhalation: Inhalation of vapors or mists may cause severe irritation and burns of the nose, throat and upper respiratory tract. Prolonged inhalation may cause pulmonary edema.

Chronic: Prolonged or overexposure may cause damage to eyes, skin and mucous membranes. Repeated inhalation exposure may cause impairment of lung function and permanent lung damage. Ingestion of high concentrations may cause injuries to liver, kidneys and central nervous system.

Sensitization: Sodium hypochlorite has been reported to cause sensitization in some individuals.

Carcinogenicity: None of the components present are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU Substance Directive.

Germ Cell Mutagenicity: Sodium hypochlorite has tested positive in in-vitro test systems, and negative in in-vivo test systems. These results are consistent with other germicides.

Reproductive Toxicity: None currently known for the mixture.

Numerical Measures of Toxicity:

Sodium Hypochlorite: Oral rat LD50 – 8200 mg/kg

Sodium Chloride: Oral rat LD50 – 3000 mg/kg; Inhalation rat LC50 - 42000 mg/m³/1hr; Skin rabbit LD50 – 10000 mg/kg

Carbonic Acid Sodium Salt: Oral rat LD50- 4090 mg/kg; Inhalation rat LC50 – 2300 mg/m³/2hr

Sodium Hydroxide: Oral rat LD50 – 140 -340 mg/kg; Skin rabbit LD50 – 1350 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Product: 96 hr LC50 Bluegill sunfish – 2.90 mg/L; 96 hr LC50 Fathead minnow – 1.40 mg/L

This product is classified as toxic to the aquatic environment. Releases to the environment should be avoided.

Persistence and Degradability: This product is inorganic and not subject to biodegradation. This material is believed not to persist in the environment.

Bioaccumulative Potential: This material is not expected to bioconcentrate in organism.

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local and national environmental regulations.

14. TRANSPORT INFORMATION

DOT Hazardous Materials Description:

Proper Shipping Name: Hypochlorite Solution

UN Number: UN1791

Hazard Class/Packing Group: 8, PG II

Labels Required: Corrosive

Note: This product has an RQ of 666 lbs (Sodium Hypochlorite RQ 100 lbs)

IMDG Shipping Name: Hypochlorite Solution

IMDG Hazard Class: 8, PG II

UN Number: UN1791

IMDG Hazard Labels Required: Corrosive

IATA Shipping Name: Hypochlorite Solution

IATA Hazard Class: 8, PG II

UN Number: UN1791

IATA Hazard Labels Required: Corrosive

15. REGULATORY INFORMATION

CERCLA 103 Reportable Quantity: This product has an RQ of 666 lbs (based on the RQ of Sodium Hypochlorite of 100 lbs present at 15%). Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

Hazard Category for Section 311/312: Acute Health

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

INTERNATIONAL CHEMICAL INVENTORY STATUS:

Australia AICS: All the components are listed.

Canada DSL: All the components are listed.

China IECSC: All the components are listed.

European Union EINECS: All the components are listed.

Japan ENCS: All the components are listed.

Korea KECL: All the components are listed.

New Zealand: All the components are listed.

Philippines PICCS: All the components are listed.

United States TSCA: All the components are listed.

16. OTHER INFORMATION

NFPA Rating: Health = 2 Fire = 0 Instability = 1

HMIS Rating: Health = 3 Fire = 0 Physical Hazard = 2

Revision Summary:

11/16/07: New SDS

1/30/13: Updated format, updated Section 3: Composition, Section 8: Exposure Limits, Section 11:

Toxicological information, Section 12: Ecological information, Section 14: Packing group, and Section 16:

NFPA/HMIS Ratings.

1/19/15: Updated name and changed component percentages to weight percent.

NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Coyne Chemical shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.