MATERIAL SAFETY DATA SHEET

SODIUM HYPOCHLORITE 12.5%
MSDS ID: CL1500
Revised: 06-13-2007
Replaces: 03-01-2007

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	SODIUM HYPOCHLORITE 12.5%
MSDS ID:	CL1500
Synonyms:	Bleach
CAS Number:	MIXTURE
Chemical Family:	Base
Formula:	NaOCl

DISTRIBUTED BY:
Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

MANUFACTURED BY: HYDRITE CHEMICAL CO.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER! CORROSIVE. Causes severe burns to eyes, skin, and respiratory tract. Harmful or fatal if swallowed. Harmful if inhaled.

Physical State: Liquid.
Color: Clear. Yellow.
Odor: Chlorine odor.

POTENTIAL HEALTH EFFECTS

Routes Of Exposure: Eyes. Skin. Ingestion. Inhalation.

Target Organs: Eyes. Skin. Respiratory System.

Eye Contact: CORROSIVE-Causes severe irritation and burns. Small amounts may cause: permanent eye damage. blindness.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Contact may cause: redness. swelling. burns. blistering. tissue destruction.

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: CORROSIVE-Causes severe irritation and burns. May cause: coughing. difficulty breathing. pulmonary edema. nausea. May irritate: nose. throat. mucous membranes.

Ingestion: CORROSIVE-Causes severe irritation and burns. May cause damage to the: mouth. esophagus. stomach. May cause: vomiting. colitis. hypotension. perforation of the esophagus. circulatory collapse. convulsions. coma. death.

Medical Conditions Aggravated By Exposure To Product: Respiratory system disorders.

Other: None known.

Cancer Information: This product does not contain greater than 0.1% of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Potential Environmental Effects: See Section 12.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	OSHA Hazard	% by Wt.
Water	7732-18-5	NO	87.5 %
Sodium Hypochlorite	7681-52-9	YES	12.5 %

4. FIRST-AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Do not apply oils or ointments unless ordered by the physician.

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion: If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Note to Physicians: Do not administer acidic antidotes or Sodium Bicarbonate following overexposure. An ounce of 1% Sodium Thiosulfate or milk of magnesia may be helpful.

5. FIRE FIGHTING MEASURES

Extinguishing Media: For fires in area use appropriate media. For example: Water spray. Dry chemical. Carbon dioxide. Alcohol foam.

Fire Fighting Methods: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors.

Fire And Explosion Hazards: May generate potentially explosive oxygen.

Hazardous Combustion Products: Chlorine-containing gases.

6. ACCIDENTAL RELEASE MEASURES

Spill Clean-Up Procedures: CORROSIVE MATERIAL. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Contain spill, place into drums for proper disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death.

Storage: CORROSIVE MATERIAL. Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Relieve pressure in containers weekly. Do not freeze. Avoid temperatures greater than 70 Deg. F. Product degrades more rapidly with increasing temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Component	OSHA PEL	OSHA STEL/C	ACGIH TWA	ACGIH STEL/C
Water	Not Estab.	Not Estab.	Not Estab.	Not Estab.
Sodium Hypochlorite	*Not Estab *0.5 ppm+	*C 1 ppm *1 ppm+	*0.5 ppm	*1.0 ppm

Note: * Exposure limits for Chlorine given. + Vacated 1989 OSHA PEL(s).

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Eye/Face Protection: Wear chemical safety goggles and a full face shield while handling this product. Do not wear contact lenses.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Rubber (latex). Polyvinyl chloride. Neoprene.

Respiratory Protection: If vapors or mists are present, wear: NIOSH-Approved respirator. NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Chemical safety shoes. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Yellow.
Odor: Chlorine odor.
Boiling Point (deg. F): Not Estab.
Freezing Point (deg. F): ~ -10
Melting Point (deg. F): N.D.
Vapor Pressure (mm Hg): Not Estab.
Vapor Density (air=1): > 1
Solubility in Water: Complete
pH: > 12
Specific Gravity: 1.210 @ 25C
% Volatile (wt%): 100
Evaporation Rate (nBuAc = 1): N.D.
VOC (wt%): 0
VOC (lbs/gal): 0
Viscosity: N.D.
Flash Point: None.
Flash Point Method:
Lower Explosion Limit: N.A.
Upper Explosion Limit: N.A.
Autoignition Temperature: No Data

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions To Avoid: Avoid exposure to light. Avoid temperatures greater than 70 Deg. F. Product degrades more rapidly with increasing temperature.

Incompatible Materials: Ammonia. Organic materials. Acids. Amines. Ammonium salts. Aziridine. Methanol. Reducing agents. Oxidizing agents. Iron. Copper. Bisulfates. Phenyl acetonitrile. Cellulose. Ethyleneimine. Oxidizable metals. Soaps.

Hazardous Decomposition Products: Chlorine-containing gases. Reacts with acids to release poisonous chlorine gas. Sodium oxide.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions.

11. TOXICOLOGICAL INFORMATION

LD50 Oral: Mouse: 5800 mg/kg (Sodium Hypochlorite)
LD50 Skin: No Data
LC50 Inhalation: Rat: 293 ppm/1 H (Chlorine)

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D002

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. If approved, flush to sewer with large quantities of water.

14. TRANSPORTATION INFORMATION

DOT (Department of Transportation):
Proper Shipping Name: HYPOCHLORITE SOLUTION
Hazard Class: 8
Identification Number: UN1791
Packing Group: III
Label Required: CORROSIVE
Reportable Quantity (RQ): 100# (Sodium Hypochlorite)

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category:
Immediate (Acute) Health Hazard: Y
Delayed (Chronic) Health Hazard: N
Fire Hazard: Y
Sudden Release Of Pressure Hazard: N
Reactive Hazard: N

SARA Section 302/304/313/HAP:

Component	CERCLA RQ	SARA RQ	SARA TPQ	SARA 313	U.S. HAP
Water	N.A.	N.A.	N.A.	NO	NO
Sodium Hypochlorite	100	N.A.	N.A.	NO	NO

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NSF/ANSI Standard 60 Maximum Use Level: 84 mg/L.

U.S. STATE REGULATIONS

California - The following components are listed under Proposition 65:
No data available.

Wisconsin - The following components are listed as a Wisconsin HAP:
None.

16. ADDITIONAL INFORMATION

Hydrite Rating System
Health: 3
Flammability: 0
Reactivity: 1
* = Chronic Health Hazard

NFPA Rating System
Health: 3
Flammability: 0
Reactivity: 1
Special Hazard: OX

MSDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

MSDS Prepared by: LW

Reason for Revision: Change(s) made in Section 7.

The data in this Material Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.