



15185 Main Street  
Lemont, IL 60439  
630-257-3900

# Material Safety Data Sheet

## Sodium Hypochlorite

### Section 1: Product Identification

**PRODUCT NAME**  
Sodium Hypochlorite Solution

**REVISION DATE**  
April 1, 2002

**MOLECULAR WEIGHT**  
74.44

**ID NUMBER**  
UN 1791

**CHEMICAL FORMULA**  
NaOCl ( Aqueous Solution)

**CAS NUMBER**  
7681-52-9

**CHEMICAL NAME**  
Sodium Hypochlorite ( Aqueous Solution)

#### EMERGENCY NUMBERS

24 Hour Emergency : CHEMTREC 1-800-424-9300  
Product Information: Lemont, IL 1-630-257-3900

### Section 2: Physical Data & Ingredients

**APPEARANCE**  
Clear to Light Yellow Liquid

**ODOR**  
Pungent, irritating, that of household bleach.

**VAPOR PRESSURE**  
Approx. that of air.

**BOILING POINT**  
Decomposes prior to boiling.

**SOLUBILITY**  
Completely in water

**VAPOR DENSITY ( Air=1)**  
Approx. that of air.

**pH OF SOLUTIONS**  
Approx. 12

**SPECIFIC GRAVITY**  
1.0890 @ 6.0 % by volume @ 68° F  
1.2180 @ 15.5% by volume @ 68° F  
1.266 @ 20 % by volume @ 68 °F

**INGREDIENTS**

	%
Materials : Sodium Hypochlorite	5 - 20 %
Sodium Hydroxide	0.3 - 5% Approx.
Water	Balance

### Section 3: Fire & Explosion Information

**FIRE**  
Not considered to be a fire hazard

**EXPLOSION** - Not considered an explosion hazard.

**FIRE EXTINGUISHING MEDIA** - Use any means suitable for extinguishing surrounding fire.

### Section 4: Reactivity Data

**STABILITY** - Stable under ordinary conditions of use and storage. Slowly decomposes on contact with air. Rate increases with the concentration and temperature.

**HAZARDOUS DECOMPOSITION PRODUCTS** - Decomposes under various mechanisms. May generate chlorine or oxygen which may be toxic and explosive, respectively.

**HAZARDOUS POLYMERIZATION** - This substance does not polymerize.

**INCOMPATIBILITY: ( MATERIALS TO AVOID)** - Reacts vigorously with amines, ammonium salts, reducing agents, methanol, acids and most organics. Will liberate chlorine gas!

### Section 5: Leak, Spill, Disposal

**STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED**  
Keep material from flowing to sewers or areas where mixing of other liquids may occur. Ventilate area of leak or spill. Move unprotected personnel upwind out of danger.

**WASTE DISPOSAL METHOD**  
Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material ( e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Ensure compliance with local, state and federal regulations.

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## Section 6: Health Hazard Data

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IS CHEMICAL LISTED AS A CARCINOGEN OR  
POTENTIAL CARCINOGEN? NTP - NO IARC - NO OSHA - NO

MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE:  
Persons with impaired respiratory function or heart disorder ( or disease)  
may be more susceptible to the effects of the substance.

PERMISSIBLE EXPOSURE LIMIT  
OSHA : Sodium Hydroxide 2mg/ m<sup>3</sup> ceiling  
Chlorine 0.5 ppm - 8 hour TWA, 1ppm - 15 min STEL

### **ACUTE TOXICITY- Danger Corrosive**

**INGESTION** - Ingestion of a few ounces can cause corrosion of mucous membranes, swelling of the throat, perforation of the esophagus and stomach, vomiting, colitis, and circulatory collapse. May lead to convulsions, coma or death

**EYE / SKIN** - Liquid contact can produce irritations of the skin with blistering. Direct contact with eyes may cause redness, pain and in the case of concentrated Hypochlorite ( 20% by volume), permanent damage.

**INHALATION** - Inhalation of mist or fumes can cause bronchial irritation, cough, difficult breathing, inflammation of the mouth, nausea, and in severe exposures, pulmonary edema. Material has odor of chlorine.

**CHRONIC TOXICITY** - No Data Found

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## Section 7: Emergency & First Aid Procedures

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**INHALATION** - Move person to fresh air. If breathing is difficult, administer oxygen and call a physician. If not breathing, give artificial respiration

**EYE CONTACT** - Immediately flush skin with copious amounts of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention.

**SKIN CONTACT** - Immediately flush affected area with copious amounts of water for a least 15 minutes while removing any contaminated clothing / shoes. If irritation occurs, consult a physician.

**INGESTION** - Do not induce vomiting ! Give large quantities of water. Never give anything by mouth to an unconscious person. Take immediately to a hospital or physician.

**NOTE TO PHYSICIAN** - Do not administer acidic antidotes or Sodium Bicarbonate following Sodium Hypochlorite overexposure. An ounce of 1% Sodium Thiosulfate or milk of magnesia is helpful.

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## Section 8: Occupational Control

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**VENTILATION REQUIREMENTS** - Local exhaust.

**PERSONAL RESPIRATORS:** Recommended for all personnel working in or about an area of potential mist exposure. Use only NIOSH / MSHA approved respirator for mists and chlorine.

**SKIN PROTECTION REQUIREMENTS** - Wear impervious protective clothing; including boots; gloves; lab coat; apron or coveralls to prevent skin contact. Preferred Materials: Nitrile, Neoprene, PVC, Rubber

**EYE PROTECTION REQUIREMENTS** - Use chemical safety goggles impervious to product. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in immediate work area.

NOTE: ALL PROTECTIVE EQUIPMENT MUST CONFORM WITH 29 CFR 1910.132.

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## Section 9: Handling & Storage

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Store in a cool, dry ventilated area. Protect against physical damage. Keep separate from acids and organics. Label all pipelines, storage vessels, and offload connections.

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## Section 10: Regulatory Information

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**DOT HAZARD CLASS**  
Corrosive Material - 8

**DOT PLACARD REQUIRED**  
Corrosive - UN 1791

**DOT LABEL**  
Corrosive

**REPORTABLE QUANTITY**  
Reportable quantity - 100 lbs.

**NFPA / HMIS RATINGS**

Health - 3                      Flammability - 0                      Reactivity - 0

**TSCA** - All ingredients are listed on the TSCA inventory.

**SARA TITLE III**

Sara 311 / 312 - Hazard Class - Acute Health Hazard, Reactive Hazard  
Sara 313 - Not Listed.  
Sara 302 - Not Listed.

**NSF**

Maximum use for disinfection, oxidation, algicide is ( per ANSI/NSF Standard 60) = 84 mg/l.

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