



MSDS *Material Safety Data Sheet*

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24 Hour Emergency Telephone: 1-800-1-888-6800

All non-emergency calls should be directed to Customer Service (1-800-1-888-6800 x501)

Sodium Hypochlorite **8% Active Chlorine**

Section 1 – Product Identification

Synonyms: Liquid bleach
CAS No.: 7681-52-9
Molecular Weight: 74.44
Chemical Formula: NaOCl in water

Section 2 – Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Hypochlorite (as NaOCl)	7681-52-9	8%	Yes
Water	7732-18-5		No
Sodium Hydroxide	1310-73-2	0.2 %	Yes

Section 3 – Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

Health Rating: 2 – Moderate
Flammability Rating: 0 – None
Reactivity Rating: 1 – Slight
Contact Rating: 2 – Moderate



Potential Health Effects

Inhalation: May cause irritation to the respiratory tract, (nose and throat); symptoms may include coughing and sore throat.

Ingestion: May cause nausea, vomiting.

Skin Contact: May irritate skin.

Eye Contact: Contact may cause severe irritation and damage, especially at higher concentration.

Acute Exposure: Inhalation of material is irritating to nose, throat, and lungs. It may also cause burns to respiratory tract with production of lung edema which can result in shortness of breath, wheezing, coughing, chest pain and impairment of lung function.

Chronic Exposure: A constant irritant to the eyes and throat. Low potential for sensitization after exaggerated exposure to damaged skin.

Effects of Overexposure: Health hazard: Eye: Contact may cause impairment of vision and corneal damage. Skin: Dermal exposure can cause severe irritation without burns characterized by redness, swelling and scab formation. Prolonged skin exposure may cause destruction of dermis with impairment of skin @ site of contamination to regenerate.

Aggravation of Pre-existing Conditions: Persons with impaired respiratory function, or heart disorders (or disease) may be more susceptible to the effects of the substance.

Section 4 – First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician: Consider oral administration of sodium thiosulfate solutions if sodium hypochlorite is ingested. Do not administer neutralizing substances since the resultant exothermic reaction could further damage tissue. Endotracheal intubation could be needed if glottic edema compromises the airway. For individuals with significant inhalation exposure, monitor arterial blood gases and chest x-ray.

Section 5 – Fire Fighting Measures

Fire: Not considered to be a fire hazard. Substance releases oxygen when heated, which may increase the severity of an existing fire. Gives off irritating or toxic fumes (or gases) in a fire.

Explosion: This solution is not considered to be an explosion hazard. Anhydrous sodium hypochlorite is very explosive.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Use water spray to cool fire-exposed containers, to dilute liquid and control vapor. On small fire, use dry chemical, carbon dioxide or water spray. On large fires, use water in flooding quantities as fog. In case of fire, hazardous concentrations of chlorine may be formed. See Section 8 for personal protective equipment for fire fighting.



Special Information: In the event of fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6 – Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible.

Air Release: Vapors may be suppressed by the use of a water fog. Capture all run-off water for treatment and disposal.

Water Release: This material is soluble in water. Dike or contain material via use of vacuum or pump operation and treat before disposition. This material is harmful to aquatic life.

Land Spill: Compatible absorbents: Sand, clay soil, commercial absorbents. Do not use combustible materials, such as sawdust.

Section 7 – Handling and Storage

Handling: Do not take internally. Avoid contact with skin or eyes, upon contact with skin or eyes, wash off with water.

Storage: Store in a cool, dry well-ventilated area. Avoid high temperatures and exposure to direct sunlight. Store in the dark at the lowest possible temperature, but keep from freezing.

Section 8 – Exposure Controls/Personal Protection

Airborne Exposure Limits: Sodium Hypochlorite: AIHA (WEEL) – STEL – 2 mg/m³
OSHA Permissible Exposure Limit (PEL): 0.5 ppm (TWA), 1 ppm (STEL) as Chlorine
ACGIH Threshold Limit Value (TLV): 1 ppm (TWA), 3 ppm (STEL) as Chlorine

Ventilation System: A system of local and /or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a full face piece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick drench facilities in work area.



Section 9 – Physical and Chemical Properties

Physical State: Liquid
Appearance: Greenish-yellow
Odor: Chlorine-like
Boiling Point: Decomposes on heating
Decomposition Temperature: Decomposes as heated
pH @ 25°C: > 11
Solubility: Soluble in water
Specific Gravity: 1.08 – 1.26
Molecular Weight: 74.44

Section 10 – Stability and Reactivity

Stability: Slowly decomposes on contact with air. Rate increases with concentration and temperature. Exposure to sunlight accelerates decomposition. Sodium Hypochlorite becomes less toxic with age.
Hazardous Decomposition Products: Emits toxic fumes of chlorine when heated to decomposition.
Incompatibilities: Ammonia (chloramines gas may evolve), strong acids, amines, ammonium salts, other oxidizers, metals, formic acid, methanol, cellulose, soaps, and bisulfates.
Conditions to Avoid: High heat, sunlight, ultra-violet light, incompatibles.

Section 11 – Toxicological Information

Routes of Entry: Inhalation, absorption, ingestion
No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a tumorigen and mutagen. Irritation data: eye, rabbit, 10 mg – Moderate.
Human Threshold Response Data: Odor Threshold: Approximately 0.9 mg/m³ (0.3 ppm) based on odor of chlorine.
Carcinogenicity: CAS # 7681-52-9: Not listed by ACGIH, IARC, NTP

Section 12 – Ecological Information

Environmental Fate: No information found.
Environmental Toxicity: No information found.

Section 13 – Disposal Considerations

Dilute with water and flush to sewer if local ordinances allow, otherwise, whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Dispose of in accordance with local, state and federal regulations by treatment in a wastewater treatment system.



Section 14 – Transport Information

This material is regulated as a DOT Hazardous Material.

US DOT: Shipping Name: Hypochlorite Solutions

Hazard Class: 8

UN Number: UN1791

Packing Group: III

Hazard Label/Placard: Corrosive

Section 15 – Regulatory Information

TSCA: CAS # 7681-52-9 is listed on the TSCA inventory

Section 16 – Other Information

NFPA Rating: Health: 2 Flammability: 0 Reactivity: 1

Disclaimer:

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