



**SODIUM HYPOCHLORITE (NaOCl)**  
**PRODUCT MATERIAL SAFETY DATA SHEET (MSDS)**

**REVISION HISTORY**

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N/A	27 July 2011	None (Initial revision)
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**SIGNATURES**

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## **1 DISCLAIMER**

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## 2 SODIUM HYPOCHLORITE (NaOCI)

### 2.1 PRODUCT AND COMPANY IDENTIFICATION

**Chemical Name:** Sodium Hypochlorite  
**Trade Name:** Industrial Bleach, 7.0%  
**Supplier:** International Chemical Industries, Inc.  
 Km 32 McArthur Highway, Guiguinto, Bulacan 3015  
**Telephone:** 63-44-7940444-45  
**Toll Free:** 1-800-1888-6800  
**Fax:** 63-44-7944104

### 2.2 HAZARDS IDENTIFICATION

**Classification (GHS):**

Danger

**Hazard Pictograms**



**Hazard Statements:**

H315: Causes skin irritation  
 H318: Causes serious eye damage  
 H401: Toxic to aquatic life

**Precautionary Statements:**

P264: Wash exposed skin thoroughly after handling  
 P273: Avoid release to the environment  
 P280: Wear protective gloves, protective clothing, eye protection, face protection  
 P302, P352: If on skin: Wash with plenty of soap and water  
 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/physician  
 P332, P313: If skin irritation occurs: Get medical advice/attention  
 P362: Take off contaminated clothing  
 P501: Dispose of contents/container to comply with government regulations

#### **TOXICITY ROUTES OF EXPOSURE**

**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.

<b>Acute Exposure:</b>	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.
<b>Chronic Exposure:</b>	A constant irritant to the eyes and throat. Low potential for sensitization after exaggerated exposure to damaged skin
<b>Overexposure:</b>	Eyes – 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 at site of contamination to regenerate.
<b>Medical Conditions Aggravated by Exposure:</b>	Persons with impaired respiratory function, or heart disorders (or disease) may be more susceptible to the effects of the substance.

### **2.3 COMPOSITION / INGREDIENTS**

<b>Sodium Hypochlorite:</b>	8%
<b>Sodium Hydroxide:</b>	0.2%
<b>Chemical Formula:</b>	NaOCl
<b>Molecular Weight:</b>	74.44
<b>CAS Registry No:</b>	7681-52-9

### **2.4 FIRST AID MEASURES**

Skin:	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
Eyes	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen
Ingestion	If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person.

#### **SEEK 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 & chest x-ray.

## 2.5 FIRE FIGHTING MEASURES

Auto-ignition Point	Not Applicable
Flash Point	Not Applicable
Flammability / Explosive limits:	Not Applicable
Fire / Explosion Hazards:	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. This solution is not considered to be an explosion hazard. Anhydrous sodium hypochlorite is very explosive
Fire Prevention / 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 2.8 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 face piece operated in the pressure demand or other positive pressure mode.

## 2.6 ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 2.8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible.

<b>Air Release:</b>	Vapors may be suppressed by the use of a water fog. Capture all run-off water for treatment and disposal.
<b>Water Release:</b>	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.
<b>Land Spill:</b>	Compatible absorbents: Sand, clay soil, commercial absorbents. Do not use combustible materials, such as sawdust.

## 2.7 HANDLING AND STORAGE

<b>Handling</b>	Do not take internally. Avoid contact with skin or eyes, upon contact with skin or eyes, wash off with water
<b>Storage Requirements:</b>	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.

## 2.8 EXPOSURE CONTROLS AND PROTECTION

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation

**Personal Protective Equipment:** Avoid all unnecessary exposure

**Hand protection:** Wear protective gloves

**Eye Protection:** Chemical goggles / safety glasses

**Skin and Body Protection:** Wear suitable protective clothing

**Respiratory Protection:** Wear appropriate mask

**Other information:** Do not eat, drink or smoke during use

## **2.9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>State:</b>	Liquid
<b>Appearance:</b>	Clear yellow
<b>Odor:</b>	Chlorine-like
<b>pH:</b>	Basic, strong alkali; >11
<b>Boiling point:</b>	Decomposes
<b>Flash point:</b>	Not determined
<b>Specific Gravity:</b>	1.08-1.26
<b>Vapor Pressure:</b>	Not determined
<b>Solubility in Water:</b>	Soluble in water Dissolves in acid

## **2.10 STABILITY AND REACTIVITY**

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

## **2.11 TOXICOLOGICAL INFORMATION**

Reproductive toxicity:	Not classified
Specific target organ toxicity (Single Exposure):	Not classified
Specific target organ toxicity (repeated exposure):	Not classified
Aspiration Hazard:	Not classified



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Symptoms/injuries after skin contact:	Causes skin irritation.
Symptoms/injuries after eye contact:	Causes serious eye damage
Potential Adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

## **2.12 ECOLOGICAL INFORMATION**

Ecology – Water:	Toxic to aquatic life
Environmental Toxicity	May pose potential hazard to plant and marine or aquatic life at high concentration. If not diluted, it may seriously affect aquatic life.
Bioaccumulative Potential:	Not bioaccumulative

## **2.13 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 government regulations by treatment in a wastewater treatment system.

## **2.14 TRANSPORT INFORMATION**

TDG Classification:	Do not ship by air
DOT Hazard Classification:	Class 8; Corrosive: Group III
DOT Shipping Name:	Hypochlorite Solutions ID: UN 1791
Hazard Label / Placard:	Corrosive, Environmental Toxicity

## **2.15 REGULATORY INFORMATION**

No additional information available.

## **2.16 OTHER INFORMATION**

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