



Safety Data Sheet

Sodium Hypochlorite

Revision Date: March 19, 2021

Supersedes: May 22, 2019

Document No.: DIM-SDS-005-004

Section 1: Identification of the substance/mixture and of the supplier

1.1 Product identifier

Product name: Sodium Hypochlorite

CAS registry no.: 7681-52-9

1.2 Relevant identified uses of the substance/mixture and uses advised against

Identified uses: Disinfecting agent, bleaching agent, water chlorination, waste water treatment

1.3 Details of the supplier of the safety data sheet

Company: International Chemical Industries, Inc.
KM 32 McArthur Highway, Tuktukan
Guiguinto, Bulacan 3015

Telephone: +6344-794-0444/45

Fax: +6344-794-4104

Toll free: 1-800-1888-6800

1.4 Emergency telephone number

Emergency: +6344-794-0444/45

Section 2: Hazards identification

2.1 Classification of the substance/mixture

Classification according to GHS:

Corrosive to metals - Category 1 (H290)

Skin Corrosion - Category 1B (H314)

Serious Eye Damage/Eye Irritation - Category 1 (H318)

Specific Target Organ Toxicity Single Exposure -

Category 3 (H335)

2.2 Label elements

Labelling according to GHS:

Pictograms:



GHS05



GHS07



GHS09

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Signal Word:	Danger	
Hazard Statements:	H290	May be corrosive to metals.
	H314	Causes severe skin burns and eye damage.
	H318	Causes serious eye damage.
	H335	May cause respiratory irritation
	H400	Very toxic to aquatic life.
Precautionary Statements:		
Prevention:	P234	Keep only in original container
	P260	Do not breathe dust/fume/gas/mist/vapours/spray.
	P264	Wash hands thoroughly after handling.
	P273	Avoid release to environment.
	P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
	Response:	P310
	P363	Wash contaminated clothing before reuse.
	P390	Absorb spillage to prevent material damage.
	P391	Collect spillage.
	P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage:	P404	Store in a closed container.
Supplemental Hazard Information:	EUH031	Contact with acids liberates toxic gas

2.3 Other hazards

No data available.

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Section 3: Composition/information on ingredients

3.1 Substances

Not Applicable.

3.2 Mixtures

Name of Substance	CAS Number	%wt
Sodium hypochlorite	7681-52-9	7-8
Sodium hydroxide	1310-73-2	0.2
Water	7732-18-5	91.8-92.8

Section 4: First aid measures

4.1 Description of first aid measures

- General Advice: Show this data sheet to the doctor in attendance.
- Following inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- Following 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.
- Following eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure thorough rinsing; delay can result to permanent injury.
- Following ingestion: DO NOT INDUCE VOMITING! Rinse mouth with water. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION IMMEDIATELY.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2.2 and section 11.

4.3 Indication of any immediate medical attention and special treatment

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.

Section 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding materials. Use water

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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.

Unsuitable extinguishing media

Water Jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products

Hydrogen Chloride and Chlorine gas may be produced in event of fire. May produce toxic fumes.

5.3 Advice for firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or positive pressure mode.

5.4 Further information

No data available.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ventilate area of leak or spill. Use appropriate personal protection equipment as referred to in section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible.

6.2 Environmental precautions

Do not allow entry to drainage canals, water systems and soil.

6.3 Methods and materials for containment and cleaning up

Vapors may be suppressed by the use of a water fog. Capture all run-off water for treatment and disposal. This chemical is soluble in water. Dike or contain material via use of vacuum or pump operation and treat before disposition. Compatible absorbents: sand, clay soil, commercial absorbents. Do not use combustible materials such as sawdust.

6.4 Reference to other sections

For personal protection, see section 8.

For disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Provide adequate ventilation. Avoid contact with skin or eyes, upon contact with skin or eyes. Wash thoroughly after handling.

7.2 Conditions for handling, including any incompatibilities

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.

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7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure controls/personal protection**8.1 Control parameters**

OSHA Permissible Exposure Limit (PEL):

Sodium Hydroxide: 2mg/m³ Ceiling

Chlorine (from Sodium Hypochlorite: 0.5 ppm (TWA), 1 ppm (STEL)

ACGIH Threshold Limit Value (TLV): 2 ppm (Ceiling)

Sodium Hydroxide: 2mg/m³ Ceiling

Chlorine (from Sodium Hypochlorite: 0.5 ppm (TWA), 1 ppm (STEL)

A4 not classifiable as a human carcinogen

8.2 Exposure controls**Appropriate engineering controls**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit (AEL). 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 protective equipment**Eye/face protection**

Chemical goggles or safety glasses.

Skin protection

Wear suitable protective clothing.

Respiratory protection

Respiratory equipment with replaceable vapor/mist filter

Environmental exposure controls

Do not allow entry to drainage canals, water systems and soil.

Section 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance:	Form: Liquid
	Color: Clear yellow
Molecular Formula:	NaOCl
Molecular Weight:	74.5 g/mol
Odor:	Chlorine-like
Odor threshold:	0.9 ppm
pH:	>11 (Basic, Strong Alkali)
Melting point/range:	-10 °C

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Boiling point/range:	110 °C
Flash point:	No data available.
Evaporation rate:	No data available.
Flammability:	No data available.
Upper/lower explosive limits:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	1.12 @ 25°C
Water Solubility:	Soluble in water
Partition coefficient:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

9.2 Other information

No data available.

Section 10: Stability and reactivity

10.1 Reactivity

Mixture may be corrosive to metals.

10.2 Chemical stability

Slowly decomposes in contact with air. Decomposition rate increases with concentration, temperature and exposure to sunlight. Stability increases with time.

10.3 Possibility of hazardous reactions

Violently reacts in contact with incompatible materials in section 10.5 and inappropriate conditions in section 10.4. Contact with acid produces Chlorine gas. Hazardous polymerization will not occur.

10.4 Conditions to avoid

High heat, sunlight and ultra-violet light

10.5 Incompatible materials

Ammonia (chloramines may evolve), strong acids, amines, ammonium salts, other oxidizers, metals, formic acid, methanol, cellulose, soaps, and bisulfates.

10.5 Hazardous decomposition products

Hydrogen chloride and Chlorine gas.

Section 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute oral toxicity

LD₅₀ - 8910 mg/kg in rats

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Acute inhalation toxicity0.25-hour LC₅₀ - 10.5 mg/L in rats**Skin corrosion/irritation**

Causes skin irritation.

LD₅₀ - 10,000 mg/kg in rabbits**Serious eye damage/eye irritation.**

Mixture causes serious eye damage and risk of blindness.

11.2 Further information

No data available.

Section 12: Ecological information**12.1 Toxicity**

Toxic to aquatic life.

96-hour LC₅₀:

0.090-5.9 mg/L in fathead minnows
0.10-2.48 mg/L in bluegill sunfish
1.418 mg/L in shore crab
52.0 mg/L in grass shrimp
0.145-4.0 mg/L in scud
2.1 mg/L in water flea

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

It is not expected to accumulate in the food chain.

12.4 Mobility in soil

No data available.

12.4 Other adverse effects

No data available.

Section 13: Disposal considerations**13.1 Waste treatment methods****Product**

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 in accordance with local, state and federal regulations by treatment in a wastewater treatment system

Section 14: Transport information

14.1 UN number	1791
14.2 UN proper shipping name:	Sodium Hypochlorite
14.3 Transport hazard class(es)	Class 8
14.4 Packing group	Group III

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14.5 Environmental hazards

No data available.

14.6 Transport in bulk

Do not ship by air.

14.7 Special precautions for user

No data available.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Listed in Philippine Inventory of Chemicals and Chemical Substances (PICCS)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16: Other information

NFPA rating

Health: 2

Flammability: 0

Reactivity: 1