



Chemical Marketing & Distribution Co. Ltd.

Material Safety Data Sheets Sodium Hypochlorite 12-15%

1 Product Information and Company Identification

Chemical Synonyms	Sodium Hypochlorite Bleach; hypochlorous acid, sodium salt; soda bleach; sodium oxychloride
Chemical Formula	NaOCl
CAS No	7681-52-9
Molecular Weight	74.44
Product Number/s	
Supplier	Chemical Marketing and Distribution Co. Ltd. (CMDC)
Address	P. O. Box 1053 Dammam 31431 Saudi Arabia
Telephone Number	966 03 8572466
Facsimile Number	966 03 8572648
E Mail Address	sales@cmdc.com.sa
Manufacturer	Basic Chemical Industries Ltd. (BCI), Saudi Arabia

2 Composition/Information on Ingredients

<u>Ingredients</u>	<u>CAS No</u>	<u>Percent</u>	<u>Hazardous</u>
Sodium Hypochlorite	7681-52-9	12 - 15%	Yes
Water	7732-18-5	85 - 88%	No

3 Hazards Identification

Emergency Overview	Danger! Corrosive! Causes burns to any area of contact. May be fatal if swallowed. Harmful if inhaled.
Inhalation	Excessive inhalation of vapors, mists, or fumes may cause bronchial irritation, coughing, labored breathing, nausea, and pulmonary edema. Additional effects have included circulatory collapse and confusion, delirium, coma.
Ingestion	May cause erosion of the mucous membranes. Symptoms include vomiting, circulatory collapse, confusion, coma, and death. May cause edema of pharynx, glottis, and larynx and perforation of the esophagus or stomach. Effects are less damaging at lower concentrations.
Skin Contact	Contact may cause severe irritation with blistering and eczema, especially at higher concentrations.
Eye Contact	Contact may cause severe irritation and damage, especially at higher concentration.
Chronic Exposure	A constant irritant to the eyes and throat.
Aggravation of Pre-existing Conditions	Persons with impaired respiratory function may be more susceptible to the effects of the substance.

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.

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. Containers may rupture from pressure build-up.
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.
Special Information	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 other positive pressure mode.

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. 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 sawdust. Do not flush to sewer!

7 Handling And Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8 Exposure Controls/Personal Protection

Airborne Exposure Limits	Airborne Exposure Limits ACGIH Threshold Limit Value (TLV) Chlorine (from Sod. Hypochlorite): 0.5 ppm (TWA), 1 ppm (STEL), A4 OSHA Permissible Exposure Limit (PEL) Chlorine (from Sod. Hypochlorite) - 0.5 ppm (TWA), 1 ppm (STEL) AIHA (WEEL) Sodium Hypochlorite - 2 mg/m3 (STEL)
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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. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.
Personal Respirators (NIOSH Approved)	If the exposure limit is exceeded, 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, lab coat, 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.

9 Physical And Chemical Properties

Appearance	Colorless to yellowish liquid
Odor	Chlorine-like odor
Solubility	100% in water
Specific Gravity	1.07
pH	9 - 10
Boiling Point	40C (104F) decomposes slightly
Melting Point	-6C (21F)
Vapor Density (Air=1)	No information found
Vapor Pressure (mm Hg)	17.5 @ 20C (68F)
Evaporation Rate (BuAc=1)	No information found
% Volatiles by volume @ 21C (70F)	ca. 95

10 Stability And Reactivity

Stability	Slowly decomposes on contact with air. Rate increases with the 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. Sodium oxide at high temperatures.
Hazardous Polymerization	Will not occur.
Incompatibilities	Ammonia (chloramine gas may evolve), amines, ammonium salts, aziridine, methanol, phenyl acetonitrile, cellulose, ethyleneimine,

oxidizable metals, acids, soaps, and bisulfates.

Conditions to Avoid Light, heat, incompatibles.

11 Toxicological Information

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

12 Ecological Information

Environmental Fate No information found.

Environmental Toxicity No information found.

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. Processing, use or contamination of this product may change the waste management options.

14 Transport Information

Domestic	Proper Shipping Name	Sodium Hypochlorite Solution
	Hazard Class	8
	UN/NA	UN1791
	Packing Group	III
International (Water, I.M.O.)	Proper Shipping Name	Sodium Hypochlorite Solution
	Hazard Class	8
	UN/NA	UN1791
	Packing Group	III

15 Regulatory Information

16 Other Information

NFPA Ratings Health: 3
Flammability: 0
Reactivity: 1

Label Hazard Warning Danger! Corrosive! Causes burns to any area of contact. May be fatal if swallowed. Harmful if inhaled.

Label Precautions Do not get in eyes, on skin, or on clothing.
Avoid breathing mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

Label First Aid In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. In all

cases get medical attention immediately.