



SODIUM HYDROXIDE (NaOH)
PRODUCT MATERIAL SAFETY DATA SHEET (MSDS)

REVISION HISTORY

Doc ID	Date	Changes
N/A	27 July 2011	None (Initial revision)
QCD-DS-004-001	22 December 2011	Merged document divided into individual product data sheets.

SIGNATURES

Author: _____
On File
Gemma Rojas
Quality Control Supervisor
Date

Reviewed: _____
On File
Esmeralda Santos
Head – Quality Control
Date

Reviewed: _____
On File
Alfredo M Reyes Jr
VP Manufacturing
Date

Document is uncontrolled unless signed and dated by Document Control
The signatures on this page are applicable to all pages of this document.

Approved: _____
Document Controller
Date

TABLE OF CONTENTS

1	DISCLAIMER.....	1
2	SODIUM HYDROXIDE (NaOH).....	2

1 DISCLAIMER

International Chemical Industries, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. International Chemical Industries, Inc. makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, International Chemical Industries, Inc. will not be responsible for damages resulting from use or reliance upon this information

2 SODIUM HYDROXIDE (NaOH)

2.1 PRODUCT IDENTIFICATION

Chemical Name Sodium Hydroxide

Trade Name Caustic Soda, 50 %

Synonyms Liquid Caustic Soda, Caustic, Soda
Lye, Lye Solution

2.2 HAZARDS IDENTIFICATION

This product may be corrosive, toxic and a major potential hazard upon contact to skin, eyes.

TOXICITY ROUTES OF EXPOSURE

Ingestion can cause severe burning and pain in lips, mouth, tongue, throat and stomach. Death can result from ingestion.

OVEREXPOSURE

1. Causes burns and scarring.
2. Can cause serious damage to all body tissues contacted

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Chronic eye or skin conditions

2.3 COMPOSITION / INGREDIENTS

Sodium Hydroxide, % 48-52% by weight
Chemical Formula NaOH
Molecular Weight 40 g/mole
CAS Registry No: 1310-73-2

2.4 FIRST AID MEASURES

Skin Remove contaminated clothing and immediately wash skin for a minimum of 15 minutes.

Eyes Immediately flush eyes with large amount of water, occasionally lifting the upper and lower eyelids and rotating the eyeballs. Continue flushing for a minimum of 15 minutes

Inhalation Remove to fresh air. If breathing stops, administer artificial respiration

Ingestion DO NOT induce vomiting. If person is conscious, give 2 or more glasses of water. If unconscious, never give anything by mouth

SEEK MEDICAL ATTENTION IMMEDIATELY

2.5 FIRE FIGHTING MEASURES

Autoignition Point Not Applicable.
Flammability / Explosive limits: Not Applicable.
Fire / Explosion Hazards: Contact with strong acids may generate enough heat to ignite combustibles.
Fire Prevention / Extinguishing Media Not Applicable.

2.6 ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR RELEASE: Completely contain spilled material with dikes, sandbags, etc., and prevent run off into the ground or surface waters or sewers. Recover as much caustic material as possible into containers for disposal. Add water and neutralize remaining caustic material with dilute hydrochloric acid, citric acid or another solid acidic material to a pH between 6 and 9. Collect neutralized caustic with a dry sorbent. Flush residual neutralized waste to the drain with excess water.

2.7 HANDLING AND STORAGE

Storage Requirements: Keep container tightly closed
For Small Volumes: Maybe stored in plastic jugs
For Large Volumes: Store in steel storage tanks
Incompatible Materials: Store away from acids (Refer to Section X)

2.8 EXPOSURE CONTROLS AND PROTECTION

Ventilation: 2 mg/m³
Protective Equipment for the Eyes and Skin: Goggles, respirator, disposable latex/ rubber apron, PVC rain suit, rubber boots with pant legs over boots
Precautionary Hygiene Control Measures: Avoid contact with skin, eyes, and clothing. Do not breathe mist or vapor. Wash thoroughly after handling. Safety showers and eye wash fountains should be available in storage and handling area

2.9 PHYSICAL AND CHEMICAL PROPERTIES

State liquid
Appearance colorless or slightly turbid
Odor Irritating
pH Strong base >14

Boiling Point	145 degrees Centigrade for 50% NaOH solution
Flash Point	Not determined
Specific Gravity	1.51-1.54
Vapor Pressure	~6.3mmHg at 40 degrees Centigrade
Solubility In:	WATER: miscible ACID : miscible

2.10 STABILITY AND REACTIVITY

Stability	Stable under normal handling conditions. Hazardous polymerization will not occur.
Hazardous decomposition product	None.
Materials and conditions to avoid (incompatibility) are	Chlorinated hydrocarbons, acetaldehyde, acrolein, aluminum, chlorine trifluoride, hydroquinone, maleic anhydride, and phosphorous pentoxide. Dilution with water evolves large quantity of heat.

2.11 TOXICOLOGICAL INFORMATION

Effects from skin contact:	Contact with skin can cause severe burns with deep ulcerations. Contact with solution or mist can cause multiple burns with temporary loss of hair at burn site.
Effects from eye contact	Liquid in the eye can cause severe destruction and blindness. These effects can occur rapidly affecting all parts of the eye. Mist can cause irritation with high concentration causing destructive burns.
Cancer Information	Not Applicable

2.12 ECOLOGICAL INFORMATION

EcoToxicity Data: High basicity may pose potential hazard to plant and marine life.

2.13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with all Government and Local regulations.

2.14 TRANSPORT INFORMATION

<u>Transportation of Dangerous Goods</u>	
TDG Classification	Do not ship by air
DOT Hazard Classification	Class 8; Corrosive: Group II
DOT Shipping Name	Sodium Hydroxide ID: UN1824

2.15 REGULATORY INFORMATION

No data available.

2.16 OTHER INFORMATION

This MSDS contains information under the sixteen (16) section headings required by ISO 11014 "Safety Data Sheet for Chemical Products".