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Gateway to K[illegible]ge
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MSDS No. SS 550
Effective Date June 10, 1996

SECTION I NAME

Product	SODIUM HYDROXIDE
Chemical Synonyms	Caustic Soda; Lye
Formula	NaOH
Unit Size	up to 2.5 Kg.
C.A.S. No.	1310-73-2

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 716-228-6177

NFPA HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

HMIS	
Health	3
Fire	0
Reactivity	2

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sodium Hydroxide	90-100%	See Section V.
DANGER! CORROSIVE! POISON		
CAUSES SEVERE SKIN AND EYE BURNS. MAY BE FATAL		
IF SWALLOWED. DO NOT INHALE AS DUST OR MIST.		

SECTION III PHYSICAL DATA

Melting Point (°F)	318°C (604°F)	Specific Gravity (H_2O = 1)	2.130 at 25°C
Boiling Point (°F)	1390°C (2534°F)	Percent Volatile by Volume (%)	Negligible as solid.
Vapor Pressure (mm Hg)	< 20°C	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	N/A		
Solubility in Water	109 grams dissolves in 100 mL. water at 20°C.		
Appearance & Odor	White pellets, flakes or beads; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits in Air % by Volume	Lower	Upper
Non-combustible (NA).	NA	--------	--------

Extinguisher Media: Use water spray on fire involving this material.

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Must include complete eye protection. Flood with water, using care not to splatter or splash this material. Contact with water produces intense heat and highly irritating and corrosive mist.

(1993 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.6, GUIDE PAGE NO. 60)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Not combustible but solid form in contact with moisture or water may generate sufficient heat to ignite combustible materials. Contact with most metals can generate hydrogen gas. Hot or molten material will react violently with water liberating heat and causing splashing. A severe eye hazard; solid or concentrated solution destroys tissue on contact.

D.O.T. SODIUM HYDROXIDE, SOLID, 8, UN 1823, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

Threshold Limited Value

TLV/TWA: 2 mg/m³ (Air) (Ceiling value, as 100%) (ACGIH 1992-93).

Effects of Overexposure

INGESTION: May result in severe intestinal irritation with burns to mouth, throat and stomach with nausea and vomiting. SKIN AND EYES: Contact with skin or eyes may cause severe irritation or burns. INHALATION: Severe irritation to respiratory system with pulmonary edema, lung inflammation.

Emergency and First Aid Procedures

INGESTION: If swallowed, do NOT induce vomiting. If conscious, give large amounts of water to drink. Follow with white of eggs, beaten with water. Call physician immediately. Never give anything by mouth to an unconscious person. EYES: Immediately flush with large amounts of water for 15 minutes, lifting lower and upper eyelids occasionally. Get prompt medical attention. SKIN: Flood with water, then wash with vinegar. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability			Conditions to Avoid
	Unstable		Moisture, acids and acid fumes.
	Stable	X	

Incompatibility (Materials to Avoid): Can react violently with acids and with many organic compounds. Reacts with most common metals (zinc, aluminum, tin, lead, etc.) liberating flammable hydrogen gas.

Hazardous Decomposition Products: May form sodium monoxide and/or sodium peroxide at very high temperatures.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Carefully and wearing protective clothing, sweep up and place in a suitable container. Flush spill area with water, rinse with dilute acid, preferably acetic, and finally with water.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Avoid breathing dust or mist. Wear full protective clothing including goggles or face shield. Slowly dissolve spill in water. While making solution add slowly to surface of stirred liquid to avoid violent splattering. Neutralize with sodium bisulfate and flush to sewer with copious amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type): None required in normal laboratory handling. If dusty conditions prevail, use a high efficiency particulate respirator.

Ventilation				
	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves: Rubber. **Eye Protection**: Chemical safety goggles, or face shield where appropriate.

Other Protective Equipment: Goggles, lab coat, apron, ventilation hood, proper gloves, eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Keep container tightly closed. Store in a cool, dry place; protect against moisture and water. Separate from acids, metals, explosives, organic peroxides and easily ignitible materials. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Product is deliquescent and absorbs water and carbon dioxide from air. Sodium hydroxide and trichloroethylene are especially hazardous since they react to form spontaneously flammable dichloroacetylene. Wash contaminated clothing promptly.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	Date	Approved	
No. 6	06/10/96	Michael Raszeja	Chemical Safety Coordinator MR

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