Material Safety Data Sheet
50 % Caustic Soda

Section 1: Product Identification

PRODUCT NAME
50% Caustic Soda - Liquid

EVISION DATE
April 1, 2002

SYNONYM
Sodium Hydroxide Solution

ID NUMBER
UN 1824

CHEMICAL FORMULA
NaOH

CAS NUMBER
1310-73-2

EMERGENCY NUMBERS
24 Hour Emergency : CHEMTREC  1-800-424-9300
Product Information: Lemont, IL       1-630-257-3900

Section 2: Physical Data & Ingredients

APPEARANCE
Colorless to slightly grey solution

ODOR
Virtually Odorless

VAPOR PRESSURE
1 mm Hg. @ 68º F ( 20º C)

BOILING POINT
288º F ( 142 C)

SPECIFIC GRAVITY
1.53  @ 60º F

SOLUBILITY
Complete in water

DENSITY
12.76 lbs/gal @ 60º F.

HEAT OF SOLUTION
Exothermic

pH OF SOLUTIONS
Strongly Basic ( 14)

INGREDIENTS

<table>
<thead>
<tr>
<th>Materials</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>Approx. 50%</td>
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<tr>
<td>Water</td>
<td>Balance</td>
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</tbody>
</table>

Section 3: Fire & Explosion Information

FIRE EXTINGUISHING MEDIA
Not Applicable

FIRE
Not Flammable

EXPLOSION - Contact with some metals, particularly magnesium, aluminum and zinc (galvanized), can generate hydrogen rapidly, which is explosive.

Section 4: Reactivity Data

STABILITY - Stable under ordinary conditions of use and storage.

HAZARDOUS DECOMPOSITION PRODUCTS - Reaction with various food sugars may form carbon monoxide.

HAZARDOUS POLYMERIZATION - This substance does not polymerize.

INCOMPATIBILITY: ( MATERIALS TO AVOID) - May react violently with water, acids and a number of organic compounds. Reacts rapidly with aluminum, tin and zinc. Also reacts with bronze and brass.

Section 5: Leak, Spill, Disposal Information

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED
Dike area to contain spill. Only trained personnel equipped with NIOSH/MSHA approved, full face combination dust/mist respirators should be permitted in this area. Reclaim spilled material if possible or dilute material with a large quantity of water, then neutralize with dilute acid. Properly neutralize liquid residues (pH 6-9) may be disposed of in waste water treatment facilities which allow the discharge of neutral salt solutions. Neutralized material can be recovered by vacuum truck for disposal. After all visible traces have been removed, flush area with large amounts of water.

WASTE DISPOSAL METHOD
Dispose of neutralized material in an approved hazardous waste management facility. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. It is your duty to dispose of chemical materials and/or their containers in accordance with all federal, state and local regulations.

Section 6: Health & Hazard Data

IS CHEMICAL LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN?

NTP - NOIARC - NO    OSHA - NO

MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE: None Known

PERMISSIBLE EXPOSURE LIMIT - OSHA 2mg./m³ ceiling
Section 7: Emergency & First Aid Procedures

INHALATION - Move person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

EYE OR SKIN CONTACT - In case of contact, immediately flush eyes and skin with plenty of water (soap and water for skin) for at least 15 minutes, while removing contaminated clothing and shoes. Hold eyelids open during this flushing with water. Call a physician. If skin feels slippery, caustic may still be present in sufficient quantities to cause rash or burn. Continue washing until slick skin feeling is gone. Thoroughly clean contaminated clothing and shoes before reuse or discard.

INGESTION - If swallowed, give at least 3-4 glasses of water or acidic beverages (tomato or orange juice, carbonated soft drinks). Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

Section 8: Occupational Control Measures

VENTILATION REQUIREMENTS - Local exhaust - to meet the exposure requirements and avoid mist.

PERSONAL RESPIRATORS: (NIOSH APPROVED) - Dust/mist respirators recommended for all personnel working in or about an area of potential mist exposure.

SKIN PROTECTION REQUIREMENTS - Wear impervious protective clothing; including boots; gloves; lab coat; apron or coveralls to prevent skin contact. Preferred Materials: Nitrile, Neoprene, PVC

EYE PROTECTION REQUIREMENTS - Use chemical safety goggles impervious to product. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in immediate work area.


Section 9: Handling & Storage

Store and handle only in containers suitably lined with or constructed of materials specified for this product. Keep separate from incompatibles.

Section 10: Regulatory Information

DOT HAZARD CLASS
8

DOT LABEL
Corrosive - 8

REPORTABLE QUANTITY
1,000 lbs - 454 Kgs.

NFPA / HMIS RATINGS
Health - 3 Flammability - 0 Reactivity - 1

TSCA - Sodium Hydroxide is on the TSCA inventory under CAS. NO.1310-73-2.

OSHA - Listed as a “Hazardous Chemical” as defined in 29 CFR 1910.1200 (Hazcom).

CERCLA
Listed in table 302.4 of 40 CFR part 302 as a hazardous substance with a reportable quantity of 1,000 pounds. Release to air, land or water which exceed the RQ must be reported to the National Response Center, 1-800-424-8802.

EUROPE EINECS
This product is listed on EINECS. (204-825-9)

CANADA DSL
This product is listed on the Canadian DSL.

AUSTRALIA AIC
This product is listed on AICS

KOREA ECL
This product is listed on MITI.

JAPAN MITI (ENCs)
This product is listed on MITI.

SARA TITLE III
SARA (311,312) HAZARD CLASS: Acute Health Hazard. Reactive Hazard. SARA (313) CHEMICALS: Not Listed SARA Section 302: Not listed as an Extremely Hazardous Substance/

CANADIAN REGULATIONS (WHMIS)
a.) Class E - Corrosive Material.
b.) Sensitization to product - None known.
c.) Reproductivity Toxicity - None known.
d.) Odor Threshold - No Odor.
e.) Product Use - Neutralization, chemical processing.

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