



Diamond Shamrock
Chemicals Company

MSDS NUMBER: M1184

PRODUCT NAME: **CAUSTIC SODA-
LIQUID**

MSDS DATE: OCTOBER 4, 1985

24 HOUR EMERGENCY PHONE: (214) 922-2700

I. PRODUCT IDENTIFICATION

3 HEALTH HAZARD, 0 FIRE HAZARD, & 1 REACTIVITY rating based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974)

MANUFACTURER'S NAME AND ADDRESS: Diamond Shamrock Chemicals Company,
Chlor-Alkali Division, 351 Phelps Court, P.O. Box 152300,
Irving, Texas 75015-2300

CHEMICAL NAME: Sodium Hydroxide CAS NUMBER: 1310-73-2

SYNONYMS/Common Names: Sodium Hydroxide; NaOH

CHEMICAL FORMULA: NaOH

DOT PROPER SHIPPING NAME: Caustic Soda, Liquid

DOT HAZARD CLASS: Corrosive Material

DOT I.D. NUMBER: UN 1824

HAZARDOUS SUBSTANCE: RQ-1000

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	HAZARD DATA	CAS NUMBER	%
Sodium Hydroxide	PEL = 2 mg/m ³ TLV = 2 mg/m ³ Ceiling	1310-73-2	50
Water	See Section V	7732-18-5	50

This material is listed in the TSCA Inventory.

III. PHYSICAL DATA

BOILING POINT @ 760 mm Hg: 143°C VAPOR DENSITY (Air=1): N/A

FREEZING POINT: 12.1°C (54°F)

VAPOR PRESSURE: 13 mmHg @ 60°C

SPECIFIC GRAVITY (H₂O=1): 1.54 @ 15.6°C

SOLUBILITY IN H₂O % BY WT: Completely Soluble

% VOLATILES BY VOL.: <50%

APPEARANCE AND ODOR: Clear with no odor

pH: 7.5% solution has pH 14.0

IV. FIRE AND EXPLOSION DATA

FLASH POINT: NA AUTOIGNITION TEMPERATURE: Nonflammable

FLAMMABLE LIMITS IN AIR, % BY VOLUME- UPPER: Nonflammable

LOWER: Nonflammable

EXTINGUISHING MEDIA:

This product is not combustible. Water spray, foam, carbon dioxide or dry chemicals may be used where this product is stored.

SPECIAL FIRE FIGHTING PROCEDURES:

Protective clothing and pressure-demand self-contained breathing apparatus should be worn by firefighters in areas where product is stored.

UNUSUAL FIRE AND EXPLOSION HAZARD:

None.

CAS = Chemical Abstract Service Number

PEL = OSHA Permissible Exposure Limit

TLV = TLV[®], ACGIH Threshold Limit Value, Current

N/A = No relevant information found or not available

NA = Not Applicable

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This Material Safety Data Sheet was prepared in accordance with 29 CFR 1910.1200. All information, recommendations and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee expressed or implied is made by Diamond Shamrock Chemicals Company as to the effects of such use the results to be obtained or the safety and toxicity of the product nor does Diamond Shamrock Chemicals Company assume any liability arising out of use by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

V. HEALTH HAZARD INFORMATION

HEALTH HAZARD DATA:

Caustic Soda is a corrosive material.

Sodium Hydroxide: Acute Oral LD₅₀ = 140-340 mg/kg (rat)
Acute Dermal LD₅₀ = 1.35 gm/kg (rabbit)

ROUTES OF EXPOSURE

INHALATION:

Airborne concentrations of dust, mist, or spray of caustic soda may cause damage to the upper respiratory tract and even to the lung tissue proper which could produce chemical pneumonia, depending upon severity of exposure.

SKIN CONTACT:

This product is destructive to tissues contacted and produces severe burns.

SKIN ABSORPTION:

See "Skin Contact".

EYE CONTACT:

This product is destructive to eye tissues on contact. Will cause severe burns that result in damage to the eyes and even blindness.

INGESTION:

This product, if swallowed, can cause severe burns and complete tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.

EFFECTS OF OVEREXPOSURE

ACUTE:

Corrosive to all body tissues with which it comes in contact.

CHRONIC:

The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of dust, spray, or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and an increased susceptibility to respiratory illness.

EMERGENCY AND FIRST AID PROCEDURES

EYES:

OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention immediately.

SKIN:

Wash contaminated areas with plenty of water for 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. Seek medical attention immediately.

INHALATION:

Get person out of contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. Seek medical attention immediately.

INGESTION:

NEVER give anything by mouth to an unconscious person. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. If available, give several glasses of milk. If vomiting occurs spontaneously, keep airway clear. Seek medical attention immediately.

VI. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:

Under normal conditions, this material is stable.

INCOMPATIBILITY:

Avoid direct contact with water. Caustic Soda - Liquid may be added slowly to water or acids with dilution and agitation to avoid a violent reaction. When handling Caustic Soda, avoid contact with aluminum, tin, zinc, and alloys containing these metals. Do not mix with strong acids without dilution and agitation to prevent violent or explosive reaction. Avoid contact with leather or wool.

HAZARDOUS DECOMPOSITION PRODUCTS:

None.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:

Material is not known to polymerize.