



FRANCIS DRILLING FLUIDS, LTD.

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name(s): Caustic Soda (All Grades)

Generic Name(s):

Chemical Name(s): Sodium Hydroxide

Francis Drilling Fluids, LTD.
P.O. Box 1694
Crowley, LA 70527-1694

Emergency/Telephone No.: 800-960-6610
337-783-8685
Hazardous Materials No.: 800-255-3924
Poison Control Center No.: 800-256-9822

II. HAZARDOUS INGREDIENTS

Ingredient	CAS No.	%	Hazard
Sodium Hydroxide	1310-73-2	85-90	Corrosive Material, Skin Hazard, Water Reactive Material, Eye Hazard, Irritant, Toxic Agent

III. NFPA/HMIS HAZARD IDENTIFICATION SYSTEM

0=LEAST 1=SLIGHT 2=MODERATE 3=HIGH 4 =EXTREME

Health: 3

Fire: 0

Reactivity: 1

IV. PHYSICAL DATA

Boiling Point : 2530°F	Specific Gravity (H ₂ O=1): 2.13
Vapor Pressure (mm. Hg): 42 mm Hg @ 1000° C	Melting Point: ND
Vapor Density (Air = 1): NA	Evaporation Rate: (BU AC = 1) NA
Solubility in Water: Appreciable	pH: 0.01 Moles/Liter has pH 12.0
Density (at 20° C): Bulk 133 lb /ft 3	Odor: No distinct Odor.
Appearance: White solid	Freezing Point: 604°F

V. FIRE AND EXPLOSION DATA

Flash Point: NA Flammable Limits: LEL: NA UEL: NA

Special Fire Fighting Procedures: Wear special protective clothing and self contained breathing apparatus. Eyes nor skin surface should be exposed. Extinguish fire using suitable agents for surrounding fire. Use flooding water spray to keep fire exposed containers cool. Apply from afar.

CAUSTIC SODA (ALL GRADES)

Unusual Fire and Explosion Hazards: Dissolves in water, releasing heat sufficient to ignite combustibles. If moist reacts with some metals such as aluminum, tin, and zinc to form hydrogen gas. Reacts with acids, giving off heat.

Extinguishing Media: Water, CO₂, Dry Chemical, Foam

VI. REACTIVITY

Stability: Unstable under extreme heat

Hazardous Polymerization: Will not occur

Incompatibility: Keep away from water, acids and metals.

Hazardous Decomposition: Hydrogen gas may form with some metals. Moisture can generate sufficient heat to ignite combustible. Acid reactions generate heat.

VII. HEALTH HAZARD INFORMATION

Routes of Exposure and Effects: Chronic Effects: Repeated or prolonged exposure may cause inflammatory, ulcerative respiratory changes, severe dermatitis and warty skin growths, permanent vision impairment or opacity, and possible latent perforation or long term, recurrent esophageal stricture. Acute Effects listed below:

Skin: Causes severe pain, edema, burns and possible perforation.

Eyes: Eye contact may cause vascular tissue destruction and corneal scarring.

Inhalation: May cause breathing difficulty and dizziness.

Ingestion: May cause vomiting, diarrhea and collapse.

Permissible Exposure Limits: (for air contaminants) NA

OSHA PEL (8hr. TWA): 2 mg/m³ Ceiling

ACGIH TLV: 2 mg/m³ Ceiling

Carcinogenicity:

Listed By NTP: NA

Listed By: IARC: NA

Listed By OSHA: Air Contaminants 29 CFR 1910-1000

Acute Oral LD₅₀:

Acute Dermal LD₅₀:

Aquatic Toxicology LC₅₀:

Emergency and First Aid Procedures:

Eyes: Flush immediately with clean running water for at least fifteen minutes including under the eyelids. Insure no chemical remains. Irrigate with normal saline until normal pH returns. Get medical attention immediately.

Skin: Flush skin profusely while removing contaminated clothing and shoes. Flush skin until no chemical remains. Wash with mild soap and water. For burns, cover with sterile dry dressing. Get medical attention immediately

Ingestion: Dilute the alkali by giving water or milk to drink immediately and allow vomiting to occur. If vomiting occurs, keep the head below the hips to help prevent aspiration. Avoid gastric lavage or emetics. Get medical attention immediately.

Inhalation: Remove to fresh air, if not breathing, give artificial respiration. If breathing is difficult, give oxygen get medical attention immediately.

Additional Health Hazard Information:

VIII. HANDLING AND USE PRECAUTIONS

Steps to be Taken if Material is Released or Spilled: Isolate spill area. Keep water away. Contain the spill if possible. Absorb small liquid spills with inert materials for disposal. Shovel dry spills into a dry container and cover. Dike large spills to prevent discharge. Report spills >1000 lbs.

Waste Disposal Methods: Waste product is hazardous according to RCRA criteria for corrosivity. Consult approved hazardous waste handlers for large waste amounts. Small quantities may be neutralized for nonhazardous disposal. Comply with local, state and federal regulations.

Handling and Storage Precautions: DANGER!! Toxic, corrosive, sodium hydroxide is toxic and a severe eye, skin and mucous membrane irritant. Do not get in eyes, on skin or on clothing. Avoid breathing dust. Always wear proper protective equipment and wash after handling.

Store in well sealed containers. Protect against physical damage, moisture and water. Separate from acids, metals, explosives, organic peroxides, ignitable materials and other incompatibles. Do not reuse empty containers before reconditioning.

IX. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements: Provide local exhaust or process enclosure ventilation to meet published exposure limits.

Respirator: Use an approved supplied air, self-contained or particulate respirator suitable to the exposure.

Eye Protection: Wear splash-proof or dust-resistant safety goggles and a face shield to prevent personal contact.

Gloves: Wear butyl-rubber or neoprene gauntlets to prevent contact; Wear neoprene or rubber boots.

Other Protective Clothing or Equipment: Wear long protective clothing with impervious aprons or coveralls over clothes to prevent contact. Supply emergency eye wash and drenching shower stations nearby product use. Launder clothing before reuse. Wash after handling. Change cloths, clean equipment before reuse.

X. SPECIAL PRECAUTIONS

XI. ENVIRONMENTAL/SAFETY REGULATION

Community Right to Know (SARA Title III Section 311-312)

Reactivity; Immediate(Acute); Delayed (Chronic)

DEPARTMENT OF TRANSPORTATION

Shipping Name: Sodium Hydroxide, solid

Hazard Class: 8; DOT I.D. Number: UN1823; DOT Packing Group: II;

Hazardous Substance: RQ 1000 lbs (Sodium Hydroxide) Not a DOT Marine Pollutant

Cautionary Labeling: Corrosive

NA=Not Applicable; ND=Not Determined or No Data

Date Prepared: June 15, 1995

File Name: caustic

The data presented is true and correct to the best of our knowledge and belief; however, neither seller nor preparer make any warranties, express or implied, concerning the information presented. The user is cautioned to perform his own hazard evaluation and to rely upon his own determinations.

CAUSTIC SODA (ALL GRADES)