



FRANCIS DRILLING FLUIDS, LTD.

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name(s): WellBrom Zinc/Calcium Bromide Solution

Generic Name(s):

Chemical Name(s): Zinc Bromide, Calcium Bromide, Water Solution Chemical Family: Metal bromide

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
Zinc Bromide	7699-45-8	54.7	
Calcium Bromide	7789-41-5		

III. NFPA/HMIS HAZARD IDENTIFICATION SYSTEM

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

Health: 1

Fire: 0

Reactivity: 0

IV. PHYSICAL DATA

Boiling Point (°F): 135°C/275°F	Specific Gravity (H ₂ O=1): 2.30
Vapor Pressure (mm. Hg): 17.5 mm Hg @ 20°C/68°F for aqueous portion of solution.	Melting Point: ND
Vapor Density (Air = 1): NA	Evaporation Rate: ND
Solubility in Water: Complete	pH: ND
Density (at 20° C): ND	Odor: Odorless
Appearance: Clear to straw colored liquid	Percent Volatile: 23% water (by weight)

V. FIRE AND EXPLOSION DATA

Flash Point: NA	Flammable Limits: LEL: NA UEL: NA
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Special Fire Fighting Procedures: Wear positive pressure self-contained breathing apparatus. If brown or red fumes are present during a fire, self-contained breathing apparatus is required.

Unusual Fire and Explosion Hazards: None known.

Extinguishing Media: Foam, dry chemical or carbon dioxide.

VI. REACTIVITY

Stability: Stable

Hazardous Polymerization: Will not occur.

Incompatibility: Avoid acids and oxidizers

Hazardous Decomposition: Hydrogen bromide, Bromine.

VII. HEALTH HAZARD INFORMATION

Routes of Exposure and Effects:

Skin: Prolonged exposure may cause irritation and superficial burns. Repeated or prolonged skin contact may cause dermatitis and defatting.

Eyes: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

Inhalation: Vapors are unlikely due to physical properties. Mists may cause severe irritation to upper respiratory tract and lungs.

Ingestion: Single dose oral toxicity is believed to be low. Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat.

Permissible Exposure Limits: (for air contaminants) ND

OSHA PEL (8hr. TWA): ND

ACGIH TLV: ND

Carcinogenicity:

Listed By NTP: Not listed	Listed By: IARC: Not listed	Listed By OSHA: Not listed
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Acute Oral LD50:	Acute Dermal LD50:	Aquatic Toxicology LC50:
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Emergency and First Aid Procedures:

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes. Consult medical personnel.

Eyes: Immediate and continuous irrigation with flowing water for at least 30 minutes is imperative. Prompt medical consultation.

Ingestion: Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility.

Inhalation: Remove to fresh air if effects occur. Consult medical personnel.

Additional Health Hazard Information:
Systemic and other effects: Repeated excessive exposures may cause chills, nausea, chest pains and shortness of breath. Observations in animals include kidney and liver effects.

Note to physician: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagosopic control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

VIII. HANDLING AND USE PRECAUTIONS

Steps to be Taken if Material is Released or Spilled: Prevent entry into sewers or natural waters. Dike and contain large spills for recovery. Flush residue or small spills with large amounts of water. Precautions must be taken to prevent discharge of solution into water supplies.

Waste Disposal Methods: Dispose of in accordance with Local, State and Federal regulations pertaining to salt solutions.

Handling and Storage Precautions: Avoid eye and skin contact. Avoid breathing dust or mists if generated. Eye wash and safety showers should be near work area.

IX. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respirator: Atmospheric levels should be maintained below the exposure guideline. When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.

Eye Protection: Use chemical goggles. Eye wash fountain should be located in immediate work area.

Gloves: Resistant to chemical penetration.

Other Protective Clothing or Equipment: Clean, body-covering clothing, rubber boots, and gloves. In addition, if repeated or severe exposure is likely, rubber apron, slicker suit or other resistant should be worn. If skin comes in contact with contaminated clothing, remove the clothing immediately, wash skin area with soap and water, and launder clothing before reuse.

X. SPECIAL PRECAUTIONS

XI. ENVIRONMENTAL/SAFETY REGULATION

TSCA: This material is in compliance with the Toxic Substances Control Act (15 USC 2601 -2629).

DEPARTMENT OF TRANSPORTATION

Shipping Name: Hazardous Substance Liquid, N.O.S.
(Zinc/Calcium Bromide) NA9188

Hazard Class: ORM-E *Not regulated for transportation in containers of less than 115 gallons (450L).

Hazardous Substance: RQ 1000

Cautionary Labeling: None

Placard: NA9188

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

Date Prepared: July 31, 1995

File Name: ZincBromide

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.