



FRANCIS DRILLING FLUIDS, LTD.

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name(s): ENVIROCAL

Generic Name(s): Modified calcium lignosulfonate

Chemical Name(s): Amorphous polymer

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.	%	
None known			

III. NFPA/HMIS HAZARD IDENTIFICATION SYSTEM

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

Health: 1

Fire: 1

Reactivity: 0

IV. PHYSICAL DATA

Boiling Point (°F): NA	Specific Gravity (H ₂ O=1): NA
Vapor Pressure (mm. Hg): NA	Melting Point: ND
Vapor Density (Air = 1): NA	Evaporation Rate: ND
Solubility in Water: 100%	pH: 4.0-7.0
Density (at 20° C): NA	Odor: Slight odor
Appearance: Brown powder	% Volatiles by Weight 5.0 (Water)

V. FIRE AND EXPLOSION DATA

Flash Point: NA Auto Ignition Temperature: >400°F for dust

Flammable Limits: LEL: ND UEL: ND

Special Fire Fighting Procedures: Use supplied breathing air and protective clothing.

Unusual Fire and Explosion Hazards: Flammable solids may provide conditions for a dust explosion.

Extinguishing Media: Use water spray, carbon dioxide, dry chemical, alcohol type, or universal type foams applied by manufacturer's recommended techniques.

VI. REACTIVITY

Stability: Stable

Hazardous Polymerization: No polymerization.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition: Carbon dioxide, carbon monoxide and sulfur dioxide.

VII. HEALTH HAZARD INFORMATION

Routes of Exposure and Effects:

Skin: None known.

Eyes: None known.

Inhalation: None known.

Ingestion: None known.

Permissible Exposure Limits: (for air contaminants) ND

OSHA PEL (8hr. TWA): 15 mg/m³ for dust.

ACGIH TLV: 15 mg/m³ for dust.

Carcinogenicity:

Listed By NTP: Not listed

Listed By: IARC: Not listed

Listed By OSHA: Not listed

Acute Oral LD50:

Acute Dermal LD50:

Aquatic Toxicology LC50:

Emergency and First Aid Procedures:

Skin: Flush with clean water.

Eyes: Irrigate with potable water.

Ingestion: Give water to dilute and get medical attention.

Inhalation: Remove from dusty area.

Additional Health Hazard Information::

WARNING: NUISANCE DUST

As with all dusts, avoid high concentrations. Minimize contact with eyes, skin and clothing. Tests to determine acute oral toxicity of lignosulfonates to rats produced no deaths from which an LD50 could be determined.

Notes to physician:

Very low toxicity. Direct treatment of over exposure at controlling symptoms and the clinical condition.

VIII. HANDLING AND USE PRECAUTIONS

Steps to be Taken if Material is Released or Spilled: Mechanically collect and remove spilled material. Area may be washed with water if desired.

Waste Disposal Methods: Incinerate, bury or flush to sewer in accordance with applicable Local, State and Federal regulations.

Handling and Storage Precautions: Normal precautions common to good manufacturing practices should be followed in handling and storage.

IX. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements: Adequate ventilation for comfort is recommended. Refer to the ACGIH document "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Respirator: If a powder, use of a NIOSH approved dust mask is recommended. A full respiratory protection program is recommended. Refer to NIOSH/OSHA "Occupational Health Guidelines for Chemical Hazards" for additional details.

Eye Protection: Goggles recommended for prolonged exposure.

Gloves: Gloves recommended for prolonged exposure.

Other Protective Clothing or Equipment: Personal hygiene should be strongly encouraged so that all clothing items which contact skin are changed daily.

X. SPECIAL PRECAUTIONS

Normal precautions common to good manufacturing practices should be followed in handling and storing.

XI. ENVIRONMENTAL/SAFETY REGULATION

Toxicity studies on typical lignosulfonate products show them to be non-toxic and non-irritating. The Food and Drug Administration has issued regulations for the safe use of lignosulfonic acid and common lignosulfonic salts in the wide variety of applications.

DEPARTMENT OF TRANSPORTATION

Shipping Name: Not restricted

Hazard Class: Nonhazardous

Hazardous Substance: NA

Cautionary Labeling: None required

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

Date Prepared: July 24, 1995

File Name: Envirocal

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.