



FRANCIS DRILLING FLUIDS, LTD.

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name(s): KELZAN

Generic Name(s): KELZAN AR, D, M, MU, S, T, XC, XCD, XANVIS. Various other suffixes or "K" designations, such as K9C, may also exist. See product label.

Chemical Name(s): Polysaccharide gum.

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
Xanthan gum	11138-66-2		None of the components are considered hazardous under OSHA Hazard Communication Regulations (29CFR 1910.1200).

III. NFPA/HMIS HAZARD IDENTIFICATION SYSTEM

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

Health: 0

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: NA
Vapor Density (Air = 1): NA	Evaporation Rate: NA
Solubility in Water: Soluble, forming viscous solutions becoming a paste at concentrations >about 5%	pH: 1% solution - approx. Neutral
Density (at 20° C): Bulk density ~50 lb/cu. ft.	Odor: Slight odor
Appearance: White to tan powder	

V. FIRE AND EXPLOSION DATA

Flash Point: NA	Flammable Limits: LEL: NA UEL: NA
Special Fire Fighting Procedures: Treat as a "Class A" fire. Product will burn when in contact with flame, self-extinguishes when ignition source is removed but tends to smolder. Auto ignition temperature is above 200°C.	
Unusual Fire and Explosion Hazards: As with most organic materials, this product should be treated as a combustible dust when in the finely divided and air-suspended state. Surfaces that may be covered with this product will become extremely slippery upon application of water.	
Extinguishing Media: Use water spray and/or foam extinguishing agents as appropriate for surrounding fire.	

VI. REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur.
Incompatibility: Strong oxidizers.
Hazardous Decomposition: Thermal decomposition products may include carbon dioxide and carbon monoxide.

VII. HEALTH HAZARD INFORMATION

Routes of Exposure and Effects:		
Skin: Not an irritant. Not a sensitizer.		
Eyes: Not an irritant as defined in Consumer Product Safety Commission regulations 16 CFR 1500.42; however, the dry material may cause foreign body irritation in some individuals.		
Inhalation: Excessive inhalation may cause minor respiratory irritation.		
Ingestion: None		
Permissible Exposure Limits: (for air contaminants) NA		
OSHA PEL (8hr. TWA): NA		
ACGIH TLV: NA		
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: No harmful effects expected.		
Eyes: Flush with water. If irritation develops, call a physician.		
Ingestion: No harmful effects expected.		
Inhalation: If large quantities have been inhaled, keep airway open as necessary.		
Additional Health Hazard Information: None of the ingredients of this material meet the definition of "Hazardous Chemical" given in OSHA Hazard communication regulation 29 CFR 1910.1200(c). LD50, Oral, Rat - >5,000 mg/kg Chronic oral, rat - no adverse effects at up to 1,000 mg/kg/day		

Chronic oral, dog - no adverse effects up to 1,000 mg/kg/day.
3-generation reproduction, rat - no adverse effects up to 500 mg/kg/day.
Aquatic toxicity - LC50, 96 hr., rainbow trout: 490 mg/l
LC50,48 hr., Daphnia magna: 980 mg/l
LC50, 96 hr., mysid shrimp, using 2 lb./bbl. xanthan gum in a standard drilling mud: >50,000 ppm whole mud.

VIII. HANDLING AND USE PRECAUTIONS

Steps to be Taken if Material is Released or Spilled: If dry, shovel, vacuum, or sweep up and return to container.
CAUTION: The use of water washdown is not recommended unless the spilled material is already wet. Wet material on a walking surface will be extremely slippery. Wet spills should be thoroughly flushed with water until non-slippery.

Waste Disposal Methods: Dispose of in accordance with local, state, and federal regulations. Dry material can be landfilled; wet material can be sewered, if diluted enough that high viscosity or gels will not cause a blockage. This material is readily biodegradable, when at low concentrations, in a biological wastewater treatment plant. BOD5 is approximately 200 mg O₂/gram; COD is approximately 1600 mg O₂/gram.

Handling and Storage Precautions: Normal precautions common to good manufacturing practice should be followed in handling and storage. To maintain best product performance, store in a cool, dry place.

IX. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements: Local exhaust recommended if handling procedure is generating dust concentrations that exceed the PEL.

Respirator: The use of a dust respirator is recommended if handling is generating dust concentrations that become annoying or exceed the PEL.

Eye Protection: The use of goggles is recommended in heavy dust concentrations.

Gloves: Not usually necessary.

Other Protective Clothing or Equipment: Not normally required.

X. SPECIAL PRECAUTIONS

Normal precautions common to good manufacturing practice should be followed in handling and storage. To maintain best product performance, store in a cool, dry place.

XI. ENVIRONMENTAL/SAFETY REGULATION

The ingredients of this product are on the TSCA Chemical Substances Inventory, the Canadian Domestic Substances List and are included in the European Inventory of Existing Commercial Chemical Substances. They are not "toxic" under SARA Title III, nor does the product contain any "toxic" materials in excess of "de minimis concentrations" as defined at 40 CFR 372.38(a).

DEPARTMENT OF TRANSPORTATION

Shipping Name: Not restricted

Hazard Class: Nonhazardous

KELZAN

Hazardous Substance: NA	
Cautionary Labeling: None required	
NA=Not Applicable; ND=Not Determined or No Data	Date Prepared: July 25, 1995

File Name: Kelzan

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.