

April 28, 1995



Material Safety Data Sheet

FLOWZAN™ BIOPOLYMER

DRILLING SPECIALTIES COMPANY
Bartlesville, Oklahoma 74004

PHONE NUMBERS

Emergency: (918) 661-8118
Technical Services: 1-800 221-1956
For Additional MSDSs: (918) 661-7354

A. Product Identification

Synonyms: Drilling Mud Additive
Chemical Name: Proprietary
Chemical Family: Biopolymer
Chemical Formula: Proprietary
CAS Reg. No.: Proprietary
Product No.: Not Established

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it may be subject to applicable TSCA provisions and restrictions.

B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
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This product does not meet the definition of a hazardous chemical given in 29 CFR Part 1910.1200 (OSHA). Information on this form is furnished as a customer service.

See Section F, Recommended Exposure Limits.

NA - Not Applicable NE - Not Established

C. Personal Protection Information

Ventilation: Use adequate ventilation to control concentration below recommended exposure limits.

Respiratory Protection: Not generally required unless needed to prevent respiratory irritation. For concentrations exceeding the recommended exposure limit, use NIOSH/MSHA approved air purifying respirator.

Eye Protection: Use safety glasses with side shields.

Skin Protection: Avoid unnecessary skin contamination with material.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Avoid contact with eyes, skin or clothing. Avoid breathing vapors, mist, fume or dust. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Launder contaminated clothing before reuse. Wash thoroughly after handling. Use with adequate ventilation.

Store in a well-ventilated area. Store in a closed container.

E. Reactivity Data

Stability: Stable

Conditions to Avoid: Not Established

Incompatibility (Materials to Avoid): Not Established

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Not Established

Hazardous Decomposition Products: Not Established

F. Health Hazard Data

Recommended Exposure Limits:

	OSHA PEL	ACGIH TLV
Control as a nuisance dust:		
Respirable	5 mg/m ³	NE
Total Dust	15 mg/m ³	10 mg/m ³

Acute Effects of Overexposure:

Eye: Dust may produce mechanical irritation.

Skin: May produce slight irritation with prolonged contact with moistened product.

Inhalation: Non-irritating to mucous membranes, however, breathing high concentrations of the dust may cause mechanical irritation of the nose, throat, and upper respiratory tract.

Ingestion: Passes through relatively inert. May cause some gastrointestinal upset.

Subchronic and Chronic Effects of Overexposure:

No adverse effects have been noted in chronic feeding studies using laboratory animals and humans. Sarcomas were exhibited at injection sites of animals receiving repeated massive subcutaneous injections of aqueous solutions of the material. The effects may have been the result of local trauma.

Other Health Effects:

Long term exposure to high dust concentrations may cause non-debilitating lung changes.

Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	—	—	Toxic	—	—
Suspect Carcinogen	—	—	Corrosive	—	—
Mutagen	—	—	Irritant	—	—
Teratogen	—	—	Target Organ Toxin	—	—
Allergic Sensitizer	—	—	Specify - No known applicable		
Highly Toxic	—	—	information.		

First Aid and Emergency Procedures:

Eye: Flush eyes with running water. If irritation or adverse symptoms develop, seek medical attention.

Skin: Wash skin with soap and water. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

Ingestion: If illness or adverse symptoms develop, seek medical attention.

G. Physical Data

Appearance: White powder
Odor: Slight
Boiling Point: Not Applicable
Vapor Pressure: Not Applicable
Vapor Density (Air = 1): Not Applicable
Solubility in Water: Complete
Specific Gravity (H₂O = 1): Not Established
Percent Volatile by Volume: Negligible
Evaporation Rate (Butyl Acetate = 1): Not Applicable
Viscosity: Not Applicable

H. Fire and Explosion Data

Flash Point (Method Used): Not Applicable
Flammable Limits (% by Volume in Air): LEL - Not Established
UEL - Not Established

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO₂), water spray or fog

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Use NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and other protective equipment described in Section C if conditions warrant. Water fog or spray may be used to cool exposed containers and equipment.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned. If in a finely divided and suspended state, treat as a flammable dust.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:

Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Contain spill and control dusts. Keep out of water sources and sewers. Vacuum up or spray with water and sweep up and place in impervious bags or containers. If concentrations of finely divided powdered material in air are high, eliminate all possible ignition sources.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or place in permitted waste management facility.

J. DOT Transportation

Shipping Name: Not Applicable
Hazard Class: Not Applicable
ID Number: Not Applicable
Packing Group: Not Applicable
Marking: Not Applicable
Label: Not Applicable
Placard: Not Applicable
Hazardous Substance/RQ: Not Applicable
Shipping Description: Not Applicable
Packaging References: Not Applicable

K. RCRA Classification - Unadulterated Product as a Waste

Prior to disposal, consult your environmental contact to determine if TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instruction before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

— This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

— Combustible Liquid	— Flammable Aerosol	— Oxidizer
— Compressed Gas	— Explosive	— Pyrophoric
— Flammable Gas	— Health Hazard (Section F)	— Unstable
— Flammable Liquid	— Organic Peroxide	— Water Reactive
— Flammable Solid		

☒ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

N. Additional Comments

SARA 313

As of the preparation date, this product did not contain a chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

NFPA 704 Hazard Codes - - - - - Signals

Health : 0	Least - 0
Flammability: 0	Slight - 1
Reactivity : 0	Moderate - 2
Special Haz.: -	High - 3
	Extreme - 4

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