

A HUBER COMPANY

Revision Date 16/Nov/2006

Revision Number 0.1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	MF-1®
Product Use	Oil field drilling fluid compound
Chemical Name	Polyacrylamide polymer
Company	Kelco Oil Field Group Division of CP KELCO ApS 10920 W. Sam Houston Parkway North Suite 800 Houston, Texas 77064 USA
Telephone	1 800 331 3677 For additional non-emergency information +1 713 895 7575 1 8 a.m. - 5 p.m. (Central Time) weekdays
Fax	+1 713 895 7586
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2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	white
Physical State	granular powder
Odor	slight to none
D.O.T. Hazard Classification	Non-hazardous material
OSHA Regulatory Status	OSHA Hazard: Warning: Combustible dust. Ensure appropriate electrical classification and avoidance of ignition sources in dusty environments. Handle in a manner consistent with good industrial hygiene practices—avoid creating or inhaling aerosols of this or any other material.
Slip Hazard	Slip hazard when spilled material becomes wet.

2. HAZARDS IDENTIFICATION

Potential Health Effects

Principle Routes of Exposure Ingestion. Skin contact. Inhalation. Eye contact.

Acute Effects

Eyes Dry powder may cause foreign body irritation in some individuals.

Skin Prolonged contact with the dry powder may cause drying or chapping.

Inhalation Inhalation of dust may cause respiratory tract irritation
Excessive inhalation of dust may cause coughing and sneezing

Ingestion Not toxic if swallowed (less than a mouthful) based on available information.

Additional toxicology information Refer to Section 11

Potential Environmental Effects Refer to Section 12 for Ecological Information
Refer to Section 13 for Disposal Considerations

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT(S)	CAS Number
Polyacrylamide	9003-05-8

Additional Information (*) Components are listed on inventory

4. FIRST AID MEASURES

General Advice Remove material from eyes, skin and clothing.
In case of doubt or when symptoms persist, seek medical attention.
Wash heavily contaminated clothing before reuse.

Eye contact Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes. If eye irritation persists, seek medical attention.

Skin contact Wash off with soap and plenty of water.

Inhalation Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get immediate medical attention.

Ingestion DO NOT INDUCE VOMITING. If vomiting occurs naturally, reduce the risk of aspiration by leaning their body forward. Seek medical attention immediately.

5. FIRE-FIGHTING MEASURES

General Advice	Treat as "Class A" fire. Product will burn when in contact with a flame. Self extinguishes when ignition source is removed. Tends to smoulder.					
Suitable Extinguishing Media	Water. Dry chemical. Carbon dioxide (CO2).					
Hazardous Combustion Products	carbon dioxide carbon monoxide					
Specific Hazards	Can contain sufficient fines to cause a combustible dust explosion Do not breath smoke, gases or vapors generated					
Special Protective Equipment for Firefighters	As in any fire, wear self-contained breathing apparatus (SCBA) pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear					
NFPA	Health	0	Flammability	1	Instability	0
HMIS	Health	0	Flammability	1	Physical Hazard (Reactivity)	0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wet material on walking surfaces will be extremely slippery. Avoid dust formation. In case of exposure to high levels of airborne dust, wear a personal respirator in compliance with national legislation.				
Methods for Cleaning up	Use vacuum equipment designed specifically for combustible dust. Take precautionary measures against static discharges. The use of water wash down is not recommended unless the spilled material is already wet. Disposal information - Refer to Section 13.				
Other information	Reportable quantities - Refer to Section 15.				

7. HANDLING AND STORAGE

Handling	Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid conditions that generate airborne dust in handling, transfer and clean up. Product may form combustible dust-air mixtures. Keep away from heat, flame sparks and other ignition sources. Avoid emptying package in or near flammable vapors. Static charges may cause flash fire. Remove material from eyes, skin and clothing.				
Storage	Keep containers tightly closed in a cool, well-ventilated place. Avoid storing near incompatible materials (Refer to Section 10).				

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Dust: OSHA has not established specific exposure limits for this material. However, OSHA has established limits for particulates not otherwise regulated (PNOR) which are the least stringent exposure limits applicable to dusts.

Engineering Controls

Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits in this section. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Personal Protective Equipment

Respiratory Protection

Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposures exceeds established guidelines. Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer.

Hand Protection

Gloves are recommended if extended exposure is anticipated.

Eye Protection

This product does not cause significant eye irritation or eye toxicity requiring special protection. Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin and Body Protection

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white
Physical State	granular powder
Odor	slight to none
pH	9.0 (1% solution)
Flash point	Not applicable
Water solubility	Soluble.

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Stability

Stable under recommended storage conditions. Hazardous polymerization does not occur.

Conditions to Avoid

Avoid dust formation Avoid wet or humid conditions

Materials to Avoid

Strong oxidizing agents, acids, bases

10. STABILITY AND REACTIVITY

Hazardous Decomposition Products No decomposition expected under normal storage conditions

Possibility of Hazardous Reactions None expected

11. TOXICOLOGICAL INFORMATION

General

The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Due to the hygroscopic properties, they can form a paste or gel in the airway.

Polyacrylamide Carcinogenicity None of the components of this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity Microtox Toxicity: Photobacterium phosphoreum: Non-toxic.

Polyacrylamide 96-Hour LC50 Mysid shrimp in a standard drilling mud: >1,000,000 suspended particulate phase

Persistence / Degradability Components of this product are biodegradable.

Bioaccumulative Potential Inert material

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose in accordance with local, state and national regulations.

14. TRANSPORT INFORMATION

General Information The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

D.O.T. Hazard Classification Non-hazardous material

TDG Not hazardous

IMO / IMDG Not hazardous

ICAO / IATA Not hazardous

RID/ADR Not hazardous

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

International Inventories

Component(s) of the product are on the following inventory lists:

- TSCA
- Canada (DSL)
- EINECS: All components of this product are included on the inventory

USA

Federal Regulations

SARA Sections 302/304 313; CERCLA RQ:

SARA 311/312 Hazardous Categorization

This product is regulated under Section 311/312 HCS (40 CFR 370):
Immediate (acute) health hazard

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any Hazardous Air Pollutants (HAPS).

State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This product does not contain any components currently on the California list of Known Carcinogens and Reproductive Toxins

Canada

WHMIS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not a controlled product

16. OTHER INFORMATION

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Reason for Version Revised in entirety

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END OF SAFETY DATA SHEET