



Material Safety Data Sheet

A HUBER COMPANY

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Revision Number 0.1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	MF-55®
Product Use	Oil field drilling fluid compound
Chemical Name	Polyacrylamide polymer mixture
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
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Email	kofg@cpkelco.com
Internet	www.kofg.com

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance off white opaque

Physical State viscous liquid

Odor slight hydrocarbon odor

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

OSHA Regulatory Status Warning: Combustible liquid and vapor. May cause eye and skin irritation. 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.

Potential Health Effects

Principle Routes of Exposure Skin contact. Eye contact.

Acute Effects

Eyes Prolonged contact may cause irritation.

Skin Prolonged contact may cause irritation.

Inhalation Not a likely route of exposure.
No adverse effects expected.
If symptoms develop, seek medical advice.

Ingestion Do not induce vomiting without medical advice.
If conscious, wash out mouth and give water to drink.

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
Distillates (petroleum), hydrotreated light	64742-47-8
Polyacrylamide	9003-05-8

4. FIRST AID MEASURES

General Advice	Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse. In case of doubt or when symptoms persist, seek medical attention.
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. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If large quantities have been inhaled, keep airway open as necessary and seek medical attention.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. If conscious, wash out mouth and give water to drink. If symptoms persist, call a physician.
Notes to physician	Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5. FIRE-FIGHTING MEASURES

General Advice	Treat as "Class B" fire.
Suitable Extinguishing Media	Foam. Dry chemical. Carbon dioxide (CO2).
Unsuitable Extinguishing Media	Do not use water unless flooding amounts are available.
Hazardous Combustion Products	carbon dioxide carbon monoxide Nitrogen oxides (NOx)
Specific Hazards	Do not breathe smoke, gases or vapors generated Creates a slip hazard when dispersed with water on walking surface
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	1	Flammability	1	Physical Hazard (Reactivity)	0

NFPA/HMIS Code

0 = Insignificant
1 = Slight
3 = High
4 = Extreme

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Notify appropriate government, occupational health and safety and environmental authorities. Avoid contact with skin and eyes. Wear suitable personal protection equipment. Wet material on walking surfaces will be extremely slippery.
Environmental Precautions	This product is toxic to fish. Prevent from entering into soil, ditches, sewers and waterways. Local authorities should be advised if spillages enter waterways or sewer.
Methods for Cleaning up	SMALL SPILLS: . Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer. LARGE SPILLS: . Collect liquid wiith dikes and absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer. After cleaning, flush away traces with water. Disposal information - Refer to Section 13.
Other information	Reportable quantities - Refer to Section 15.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practices. Keep away from heat, flame sparks and other ignition sources. Remove material from eyes, skin and clothing. Do not take internally.
Storage	Keep containers tightly closed. Avoid storing near incompatible materials (Refer to Section 10).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

Engineering Controls Ventilation: Provide natural or mechanical ventilation for work environment.

Personal Protective Equipment

Respiratory Protection Due to its low volatility and toxicity, the hazard potential associated with this material is relatively low. Respiratory protection is not normally needed. 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. Nitrile gloves, PVC gloves

Eye Protection Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin and Body Protection Wear appropriate protective clothing. Launder contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off white opaque
Physical State	viscous liquid
Odor	slight hydrocarbon odor
pH	8.0
Flash point	>200 °F / > 93 °C (PMCC)
Boiling Point	205 °F / 96 °C
Freeze Point	-7 °F / -22 °C
Viscosity	360 - 900 cPs @ 75 °F / 24 °C
Specific Gravity	1.05 @ 77 °F / 25 °C
Density	8.56 - 8.96 lb/gal
Water solubility	Complete
VOC Content(%)	23.97 % EPA Method 24

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. Some separation may occur during storage. Hazardous polymerization does not occur.
Conditions to Avoid	Freezing temperatures
Materials to Avoid	Water - results in gelling, Strong oxidizing agents
Hazardous Decomposition Products	Under fire conditions: carbon monoxide carbon dioxide (CO ₂) nitrogen oxides

11. TOXICOLOGICAL INFORMATION

General

The following results are for the product:

Acute Oral Toxicity: LD50 > 5,000 mg/kg, rat; Non-hazardous

Primary Skin Irritation: Driaze Score: 1.5 / 8.0; Slightly irritating

Primary Eye Irritation: Driaze Score: 17.3 / 110.0; Mildly irritating

Sensitization: This product is not expected to be a sensitizer.

Potential human hazard: low

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

The following results are for a 1% aqueous solution of a similar product.

LC50>1,000 mg/l : 26 hr- Sheepshead Minnow; essentially non-toxic

LC50>1,000 mg/l : 26 hr- Rainbow trout; essentially non-toxic

LC50>270 mg/l : 48 hr- Daphnia magna; essentially non-toxic

COD: 1,330,000 mg/l

BOD: 222,000 mg/l (5 day)

Environmental Hazard:

Hazard potential: Moderate

Product application/product characteristics: Low

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

No bioaccumulation is expected

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 cfr 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D. As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

Contaminated Packaging Do not reuse empty container.

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. This information is not intended to take the place of a shipping paper (bill of lading) specific to an order.

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

TDG Not hazardous

IMO / IMDG Not hazardous

ICAO / IATA Not hazardous

RID/ADR Not hazardous

15. REGULATORY INFORMATION

International Inventories

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

- TSCA
- Canada (DSL)

USA

Federal Regulations

SARA Sections 302/304 313; CERCLA RQ:

SARA Section 302 Extremely Hazardous Substances (EHS)

This product does not contain any components listed in Appendix A and B under Section 302 (40 CFR 355) as Extremely Hazardous Substances.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

This product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are : 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

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

Right-to-Know

State Right to Know Laws: None of the substances are specifically listed in the regulation.

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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12
15

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END OF SAFETY DATA SHEET