

A HUBER COMPANY

Revision Date 16/Nov/2006

Revision Number 0.1

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|-----------------------------------|--|
| Product Name | BEN-EX® |
| Product Use | Oil field drilling fluid compound |
| Chemical Name | Acrylate 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 |
| Emergency Telephone Number | CHEMTREC: 1 800 424 9300 or International +1 703 527 3887 |
| Email | kofg@cpkelco.com |
| Internet | www.kofg.com |

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 |
| Polyacrylate | 9033-79-8 |

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.

4. FIRST AID MEASURES

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

| | | | | | | |
|-------------|---------------|---|---------------------|---|-------------------------------------|---|
| <u>NFPA</u> | Health | 0 | Flammability | 1 | Instability | 0 |
| <u>HMIS</u> | 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 Remove material from eyes, skin and clothing.
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.

7. HANDLING AND STORAGE

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.

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Conditions to Avoid | Avoid dust formation Avoid wet or humid conditions |
| Materials to Avoid | Strong oxidizing agents, acids, bases |
| 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.

Polyacrylate

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

14. TRANSPORT INFORMATION

| | |
|--------------------|---------------|
| 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)
- EINECS: All components of this product are included on the inventory

USA

Federal Regulations

SARA Sections 302/304 313; CERCLA RQ:

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SARA Section 302 Extremely Hazardous Substances (EHS)

This product does not contain any components regulated under Section 302 (40 CFR 355) as Extremely Hazardous Substances.

SARA Section 304 CERCLA Hazardous Substances (RQ)

This product contains the following component(s) regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notifications ("CERCLA" List):

Hexanedioic acid: 124-04-9 (0.05 - 0.0%) RQ: 5000 lbs

SARA Section 313 Toxic Chemical List (TCL)

This product does not contain any component(s) listed on the Section 313 Toxic Chemical List.

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 111, Volatile Organic Compounds (VOC)

This product contains the following SOCM Intermediate or Final Volatile Organic Compounds (VOC) as defined by the U.S. Clean Air Act Section 111 (40 CFR 60.489):

Urea, CAS 57-13-6

Hexanedioic acid, CAS 124-04-9

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

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

15. REGULATORY INFORMATION

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

Prepared By

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Reason for Version

Revised in entirety

Disclaimer

The information contained in this Safety Data Sheet to the best of CP Kelco's knowledge and belief as of the date indicated is believed to be accurate and reliable. However, no representation, warranty or guarantee is implied or expressed regarding the accuracy, reliability or completeness of this information or the use of the product. Nothing contained herein should be construed as a recommendation to use this product in conflict with National or local regulations or existing patents covering any material or its use.

END OF SAFETY DATA SHEET