

MATERIAL SAFETY DATA SHEET

MSDS No. 12003

Trade Name: RINGFREE*

Revision Date: 12/17/2010

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: RINGFREE*

Chemical Family: Mixture
Product Use: Drilling fluid additive.

Supplied by: M-I L.L.C.
P.O. Box 42842
Houston, TX 77242
www.miswaco.slb.com

Telephone Number: 281-561-1511
Emergency Telephone (24 hr.): 281-561-1600
Prepared by: Product Safety Group

Revision No. 6

HMIS Rating
Health: 1**Flammability:** 1**Physical Hazard:** 0**PPE:** J

4=Severe, 3=Serious, 2=Moderate, 1=Slight, 0=Minimal Hazard. *Chronic effects - See Section 11. See Section 8 for Personal Protective Equipment recommendations.

2. HAZARDS IDENTIFICATION

Emergency Overview: Occupational exposure not expected to present a health or physical hazard. Prolonged exposure, however, may cause eye, skin and respiratory irritation.

Canadian Classification:**UN PIN No:** Not regulated.**WHMIS Class:** Not a controlled product.**Physical State:** Liquid**Color:** Light yellow**Odor:** Mild**Potential Health Effects:****Acute Effects**

Eye Contact: Not expected to irritate eyes. Prolonged contact, however, may cause irritation.
Skin Contact: Not expected to irritate skin. Prolonged contact, however, may cause irritation.
Inhalation: Not expected to be an inhalation hazard. Prolonged inhalation of vapors or mists, however, may cause irritation.
Ingestion: May cause gastric distress, nausea and vomiting if ingested.

Carcinogenicity & Chronic Effects: See Section 11 - Toxicological Information.

Routes of Exposure: Eyes. Dermal (skin) contact. Inhalation.
Target Organs/Medical Conditions Aggravated by Overexposure: None expected from occupational exposure.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Wt. %	Comments:
Water	7732-18-5	30 - 60	No comments.
Acrylic polymer		60 - 100	No comments.

4. FIRST AID MEASURES

- Eye Contact:** Promptly wash eyes with lots of water while lifting eye lids. Look for and remove contact lenses. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
- Skin Contact:** Wash skin thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if any discomfort continues.
- Inhalation:** Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Dilute with 2 - 3 glasses of water or milk, if conscious. Never give anything by mouth to an unconscious person. If signs of irritation or toxicity occur seek medical attention.
- General notes:** Persons seeking medical attention should carry a copy of this MSDS with them.

5. FIRE FIGHTING MEASURES**Flammable Properties**

- Flash Point: F (C):** Not flammable
- Flammable Limits in Air - Lower (%):** ND
- Flammable Limits in Air - Upper (%):** ND
- Autoignition Temperature: F (C):** ND
- Flammability Class:** NA
- Other Flammable Properties:** ND
- Extinguishing Media:** Carbon dioxide. Dry chemical. Foam. Water mist.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Do not enter fire area without proper personal protective equipment, including NIOSH/MSHA approved self-contained breathing apparatus. Evacuate area and fight fire from a safe distance. Water spray may be used to keep fire-exposed containers cool. Keep water run off out of sewers and waterways.

Hazardous Combustion Products: Oxides of: Carbon.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Use personal protective equipment identified in Section 8.
- Spill Procedures:** Contain spilled material. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Shut off leak if it can be done safely. If released into the environment, take all reasonable measures to repair, remedy and confine the effects of the substance. Remediate, manage, remove or otherwise dispose of the substance in accordance with applicable laws and regulations. Absorb in vermiculite, dry sand or earth. Place into containers for disposal.

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Environmental Precautions: Waste must be disposed of in accordance with federal, state and local laws. In the U.S., for products with reportable quantity (RQ) components - if the RQ is exceeded, report to National Spill Response Office at 1 800 424 8802.

7. HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment. Avoid contact with skin and eyes. Avoid breathing vapors or spray mists. Use only in a well ventilated area. Wash thoroughly after handling.

Storage: Store in dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits (TLV & PEL - 8H TWA):

Ingredient	CAS No.	Wt. %	ACGIH TLV	OSHA PEL	Other	Notes
Water	7732-18-5	30 - 60	NA	NA	NA	None
Acrylic polymer		60 - 100	NA	NA	NA	None

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Personal Protection Equipment

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazards present and the risk of exposure to those hazards. The PPE recommendations below are based on our assessment of the chemical hazards associated with this product. The risk of exposure and need for respiratory protection will vary from workplace to workplace and should be assessed by the user.

Eye/Face Protection: Wear chemical safety goggles.

Skin Protection: Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear chemical resistant gloves such as nitrile or neoprene.

Respiratory Protection: All respiratory protection equipment should be used within a comprehensive respiratory protection program that meets the requirements of 29 CFR 1910.134 (U.S. OSHA Respiratory Protection Standard) or local equivalent.

If exposed to airborne mist/aerosol of this product, use at least a NIOSH-approved N95 half-mask disposable or re-usable particulate respirator. In work environments containing oil mist/aerosol, use at least a NIOSH-approved P95 half-mask disposable or reuseable particulate respirator.

If exposed to vapors from this product use a NIOSH/MSHA-approved respirator with an Organic Vapor cartridge.

General Hygiene Considerations: Wash promptly with soap and water if skin becomes contaminated. Change work clothing daily if there is any possibility of contamination.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Light yellow
Odor:	Mild
Physical State:	Liquid
pH:	6 - 8 (neat)
Specific Gravity (H₂O = 1):	1.27
Solubility (Water):	Soluble
Flash Point: F (C):	Not flammable
Melting/Freezing Point:	ND
Boiling Point:	194 - 212F (90 - 100C)
Viscosity:	100 - 500 cPs
Vapor Pressure:	ND
Vapor Density (Air=1):	ND
Evaporation Rate:	ND
Odor Threshold(s):	ND

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to Avoid:	Keep away from heat, sparks and flame.
Materials to Avoid:	Contact with oxidizing agents.
Hazardous Decomposition Products:	For thermal decomposition products, see Section 5.
Hazardous Polymerization	Will not occur

11. TOXICOLOGICAL INFORMATION

Component Toxicological Data: Any adverse component toxicological effects are listed below. If no effects are listed, no such data were found.

Ingredient	CAS No.	Acute Data
Acrylic polymer		Oral LD50: >40 gm/kg (rat)

Product Toxicological Information:
No toxicological data is available for this product.

12. ECOLOGICAL INFORMATION

Component Ecotoxicity Data: Component ecotoxicity data are listed below. If no data are listed, none were found in the component review.

Product Ecotoxicity Data:	Contact M-I Environmental Affairs Department for available product ecotoxicity data.
Biodegradation:	ND
Bioaccumulation:	ND
Octanol/Water Partition Coefficient:	ND

13. DISPOSAL CONSIDERATIONS

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Waste Classification:	This product does not meet the criteria of a hazardous waste if discarded in its purchased form.
Waste Management:	Under U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user to determine at the time of disposal, whether the product meets RCRA criteria for the hazardous waste. This is because product uses, transformations, mixtures, processes, etc., may render the resulting materials hazardous. Empty containers retain residues. All labeled precautions must be observed.
Disposal Method:	Recover and reclaim or recycle, if practical. Should this product become a waste, dispose of in a permitted industrial landfill. Ensure that the containers are empty by the RCRA criteria prior to disposal in a permitted industrial landfill.

14. TRANSPORT INFORMATION**U.S. DOT****Shipping Description:**

Not regulated for transportation by DOT, TDG, IMDG, ICAO/IATA.

Canada TDG Shipping Description:

Not regulated.

UN PIN No:

Not regulated.

IMDG Shipping Description:

Not regulated.

ICAO/IATA Shipping Description:

Not regulated.

15. REGULATORY INFORMATION**U.S. Federal and State Regulations****SARA 311/312 Hazard Categories:**Not a SARA 311/312 hazard.**SARA 302/304, 313; CERCLA RQ, California Proposition 65:** Note: If no components are listed below, this product is not subject to the referenced SARA and CERCLA regulations and is not known to contain a Proposition 65 listed chemical at a level that is expected to pose a significant risk under anticipated use conditions.**International Chemical Inventories**

Australia AICS - Components are listed or exempt from listing.
Canada DSL - Components are listed or exempt from listing.
China Inventory - Components are listed or exempt from listing.
European Union EINECS/ELINCS - Components are listed or exempt from listing.
Japan METI ENCS - Components are listed or exempt from listing.
Korea TCCL ECL - Components are listed or exempt from listing.
New Zealand - Components are listed or exempt from listing.
Philippine PICCS - Components are listed or exempt from listing.
U.S. TSCA - Components are listed or exempt from listing.
U.S. TSCA - No components are subject to TSCA 12(b) export notification requirements.

Canadian Classification:

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

WHMIS Class: Not a controlled product.

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16. OTHER INFORMATION

The following sections have been revised: 1, 6, 16.

NA - Not Applicable, ND - Not Determined.

*A mark of M-I L.L.C.

Disclaimer:

MSDS furnished independent of product sale. While every effort has been made to accurately describe this product, some of the data are obtained from sources beyond our direct supervision. We can not make any assertions as to its reliability or completeness; therefore, user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. Additional information will be furnished upon request to assist the user; however, no warranty, either expressed or implied, nor liability of any nature with respect to this product or to the data herein is made or incurred hereunder.