

MATERIAL SAFETY DATA SHEET

VERSAMUL

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: VERSAMUL
PIN No.: 1993
CHEMICAL CLASS: Fatty acid / hydrocarbon blend.
APPLICATIONS: Oil well drilling fluid additive. Emulsifier.
EMERGENCY TELEPHONE: 281-561-1600
SUPPLIER: Supplied by a Business Unit of
M-I L.L.C.
P.O. Box 42842, Houston, Texas 77242-2842
See cover sheet for local supplier.
TELEPHONE: 281-561-1509
FAX: 281-561-7240
CONTACT PERSON: Sam Hoskin

2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME:	CAS No.:	CONTENTS :	EPA RQ:	TPQ:
Proprietary ingredients		60-100 %		
Mineral oil, petroleum distillates, raffinates, sorption process	64741-85-1	10-30 %		

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

CAUTION! COMBUSTIBLE LIQUID AND VAPOR. Keep away from heat and flame.
This product is a/an dark amber liquid Dike and contain spills. Keep out of sewers and waterways.

ACUTE EFFECTS:

INHALATION: May be irritating to the respiratory tract if inhaled.
INGESTION: May cause gastric distress, nausea and vomiting if ingested.
SKIN: May be irritating to the skin.
EYES: May be irritating to the eyes.

CHRONIC EFFECTS:

CARCINOGENICITY:
IARC: Not listed. OSHA: Not regulated. NTP: Not listed.

ROUTE OF ENTRY:

Inhalation. Skin and/or eye contact.

TARGET ORGANS:

Respiratory system, lungs. Skin. Eyes.

4. FIRST AID MEASURES

- GENERAL:** Persons seeking medical attention should carry a copy of this MSDS with them.
- INHALATION:** Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Get medical attention.
- INGESTION:** Drink a couple of glasses water or milk. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. Get medical attention.
- SKIN:** Wash skin thoroughly with soap and water. Remove contaminated clothing. Get medical attention if any discomfort continues.
- EYES:** Promptly wash eyes with lots of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
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5. FIRE FIGHTING MEASURES

FLASH POINT (°F):	198	METHOD: PM Closed cup.
AUTO IGNITION TEMP. (°F):	N/D	
FLAMMABILITY LIMIT - LOWER(%):	N/D	
FLAMMABILITY LIMIT - UPPER(%):	N/D	

EXTINGUISHING MEDIA:
Carbon dioxide (CO2). Dry chemicals. Foam. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES:
Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (including fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

UNUSUAL FIRE & EXPLOSION HAZARDS:
May travel considerable distance to source of ignition and flash back.

HAZARDOUS COMBUSTION PRODUCTS:
Irritating gases/vapors/fumes. Oxides of: Carbon.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
Wear proper personal protective equipment (see MSDS Section 8).

SPILL CLEAN-UP PROCEDURES:
Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers. Rinse area with water. Dike far ahead of larger spills for later disposal. Do not contaminate drainage or waterways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Keep away from heat, sparks and open flame.
 Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Wear full protective clothing for prolonged exposure and/or high concentrations. Eye wash and emergency shower must be available at the work place.

STORAGE PRECAUTIONS:

Store at moderate temperatures in dry, well ventilated area. Keep in original container.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

INGREDIENT NAME:	CAS No.:	OSHA PEL:		ACGIH TLV:		OTHER:		UNITS:
		TWA:	STEL:	TWA:	STEL:	TWA:	STEL:	
Mineral oil, petroleum distillates, raffinates, sorption process	64741-85-1	5 *		5 *	10 *	2000 **		mg/m ³

INGREDIENT COMMENTS:

* Exposure limits are for Oil mist, mineral. ** OSHA PEL for Petroleum Distillates, naphtha.

PROTECTIVE EQUIPMENT:**ENGINEERING CONTROLS:**

Use appropriate engineering controls such as, exhaust ventilation and process enclosure, to reduce air contamination and keep worker exposure below the applicable limits.

VENTILATION: Supply natural or mechanical ventilation adequate to exhaust airborne product and keep exposures below the applicable limits.

RESPIRATORS: If exposed to particulates/aerosols:
 Use at least a NIOSH-approved N95 half-mask disposable or reuseable 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 organic vapors:
 Use a NIOSH/MSHA-approved organic vapor respirator. CCROV: CCR with organic vapor cartridge.

PROTECTIVE GLOVES:

Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Impermeable material. Such as, Neoprene, nitrile, polyethylene or PVC.

EYE PROTECTION:

Wear chemical safety goggles where eye exposure is reasonably probable.

PROTECTIVE CLOTHING:

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENIC WORK PRACTICES:

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

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE:	Liquid.
COLOR:	Dark. Amber.
ODOR:	Hydrocarbon.
SOLUBILITY DESCRIPTION:	Insoluble in water.
BOILING POINT (°F, interval):	>601 PRESSURE: 760mmHg
DENSITY/SPECIFIC GRAVITY (g/ml):	0.84 - 0.96 TEMPERATURE (°F): 68

VAPOR DENSITY (air=1):	N/D	TEMPERATURE (°F):
VAPOR PRESSURE:	N/D	REFERENCE:
EVAPORATION RATE:	N/D	CONCENTRATION (%M):
pH-VALUE, DILUTED SOLUTION:	N/A	

10. STABILITY AND REACTIVITY

STABILITY: Normally stable.

CONDITIONS TO AVOID:
Avoid heat, flames and other sources of ignition.

HAZARDOUS POLYMERIZATION:
Will not polymerize.

POLYMERIZATION DESCRIPTION:
Not relevant.

MATERIALS TO AVOID:
Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:
No specific hazardous decomposition products noted.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:
No toxicological data is available for this product. Toxicological data for major component(s):

Komponent: Mineral oil, petroleum distillates, raffinates, sorption process

TOXIC DOSE - LD 50: >5000 mg/kg (oral rat)
TOXIC CONC. - LC 50: >1.6 mg/l/4h (inh-rat)

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:
No ecological information is available for this product.

13. DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT:
This product, should it become a waste, may be a hazardous waste by U.S. RCRA criteria. Contact M-I's Environmental Affairs Department for more information.

THIS CONTAINER IS HAZARDOUS WHEN EMPTY.
Empty containers retain residues. All labeled precautions must be observed.
Residual vapors might explode on ignition; do not cut, drill, grind, or weld on or near this container.

DISPOSAL METHODS:
Recover and reclaim or recycle, if practical. Should this product become a waste, dispose of in a permitted industrial landfill. Ensure that containers are empty by RCRA criteria prior to disposal in a permitted industrial landfill.

14. TRANSPORT INFORMATION

PROPER SHIPPING DESCRIPTION II: When shipped through U.S. to port: Combustible liquid, n.o.s., NA 1993, PG III, (contains petroleum distillate)

EMERGENCY RESPONSE GUIDE No.: 128

U.S. DOT:

UN/NA No.: 1993

U.S. DOT HAZARD LABEL: No DOT label requirement noted

U.S. DOT CLASS: Combustible Liquid.

U.S. DOT PACKING GROUP: III

U.S. DOT PACKAGING INSTRUCTIONS: 49 CFR 173.150, 173.203, 173.242

INFORMATION ON ROAD TRANSPORT: Not regulated for transport in containers less than 119 gallons.

CANADIAN TRANSPORT:

TDGR CLASS: Not regulated

SEA TRANSPORT:

IMDG CLASS: Not regulated

AIR TRANSPORT:

ICAO CLASS: Not regulated

15. REGULATORY INFORMATION**REGULATORY STATUS OF INGREDIENTS:**

NAME:	CAS No:	TSCA:	CERCLA:	SARA 302:	SARA 313:	DSL(CAN):
Proprietary ingredients		Yes	No	No	No	Yes
Mineral oil, petroleum distillates, raffinates, sorption process	64741-85-1	Yes	No	No	No	Yes

US FEDERAL REGULATIONS:

WASTE CLASSIFICATION: May be a hazardous waste by RCRA criteria. Consult M-I Environmental Affairs before disposal.

REGULATORY STATUS:

This Product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented):

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

SARA 311 Categories:

1: Immediate (Acute) Health Effects.
3: Fire Hazard.

The components of this product are listed on or are exempt from the following international chemical registries:

TSCA (U.S.)

STATE REGULATIONS:**STATE REGULATORY STATUS:**

This product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented):

None.

PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required.

**CANADIAN REGULATIONS:
LABELS FOR SUPPLY:**



REGULATORY STATUS:

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations.

Canadian WHMIS Classification: B3 - Combustible Liquids

16. OTHER INFORMATION

NPCA HMIS HAZARD INDEX:

1 Slight Hazard

FLAMMABILITY:

2 Moderate Hazard

REACTIVITY:

0 Minimal Hazard

NPCA HMIS PERS. PROTECT. INDEX:

J - Splash Goggles, Gloves, Synthetic Apron, Dust and Vapor Respirator.

USER NOTES:

N/A = Not applicable N/D = Not determined

INFORMATION SOURCES:

OSHA Permissible Exposure Limits, 29 CFR 1910, Subpart Z, Section 1910.1000, Air Contaminants.

ACGIH Threshold Limit Values and Biological Exposure Indices for Chemical Substances and Physical Agents (latest edition).

Sax's Dangerous Properties of Industrial Materials, 9th ed., Lewis, R.J. Sr., (ed.), VNR, New York, New York, (1997).

Product information provided by the commercial vendor(s).

PREPARED BY:

Sam Hoskin

REVISION No./Repl. MSDS of:

1 / February 1993

MSDS STATUS:

Approved.

DATE: March 5, 1998

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 cannot 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.