



## MATERIAL SAFETY DATA SHEET

MSDS NO. 10147

Trade Name: VERSAMUL\*

Revision Date: 01/28/2008

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Trade Name:** VERSAMUL\*  
**Chemical Family:** Mixture  
**Product Use:** Oil well drilling fluid additive.  
**Emergency Telephone (24 hr.):** 281-561-1600

**Supplied by:** M-I L.L.C.  
P.O. Box 42842  
Houston, TX 77242  
www.miswaco.com  
**Telephone Number:** 281-561-1512  
**Prepared by:** Product Safety Group

**Revision Number:** 7

#### HMIS Rating

**Health:** 1                      **Flammability:** 2                      **Physical Hazard:** 0                      **PPE:** E

**HMIS Key:** 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:** Caution! Combustible liquid and vapor. May cause eye, skin, and respiratory tract irritation. Vapors or mists may cause central nervous system (CNS) effects if inhaled.

#### Canadian Classification:

**UN PIN No:** Not regulated.                      **WHMIS Class:** B3 D2B

**Physical State:** Liquid                      **Odor:** Hydrocarbon                      **Color:** Black

#### Potential Health Effects:

##### Acute Effects

**Eye Contact:** May irritate eyes.  
**Skin Contact:** May be irritating to the skin. Prolonged or repeated contact may cause defatting of the skin and/or dermatitis (inflammation).  
**Inhalation:** Vapors or mists may be irritating to the respiratory tract. May cause central nervous system (CNS) effects.  
**Ingestion:** May cause gastric distress, nausea and vomiting if ingested. Aspiration can be a hazard if this material is swallowed.

#### Carcinogenicity & Chronic Effects:

See Section 11 - Toxicological Information.

**Routes of Exposure:**  
**Target Organs/Medical Conditions Aggravated by Overexposure:**

Eyes. Dermal (skin) contact. Inhalation.  
Eyes. Skin. Respiratory System. Central Nervous System (CNS).

# MATERIAL SAFETY DATA SHEET

Trade Name: **VERSAMUL\***

MSDS NO. 10147

Revision Date: 01/28/2008

Page 2/6

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Wt. %	Comments:
Fatty acids derivatives		40 - 80	No comments.
Petroleum distillates, hydrotreated light	64742-47-8	20 - 60	No comments.
Polyamide		5 - 15	No comments.

## 4. FIRST AID MEASURES

<b>Eye Contact:</b>	Promptly wash eyes with lots of water while lifting eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
<b>Skin Contact:</b>	Wash skin thoroughly with soap and water. Remove contaminated clothing and laundry before reuse. Get medical attention if any discomfort continues.
<b>Inhalation:</b>	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Dilute with 2 - 3 glasses of water or milk, if conscious. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<b>General notes:</b>	Persons seeking medical attention should carry a copy of this MSDS with them.
<b>Notes To Physician:</b>	Aspiration may cause severe lung damage. Evacuate stomach in a way which avoids aspiration.

## 5. FIRE FIGHTING MEASURES

### Flammable Properties

**Flash Point: F (C):** 145 - 200F (65 - 93C)  
**Flash Point Method:** PMCC

**Flammable Limits in Air - Lower (%):** ND

**Flammable Limits in Air - Upper (%):** ND

**Autoignition Temperature: F (C):** ND

**Flammability Class:** IIIA

**Other Flammable Properties:** Porous combustible materials wetted with product may spontaneously ignite if exposed to air.

**Extinguishing Media:** Water fog, carbon dioxide, foam, dry chemical.

### 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. Note that flammable vapors may form an ignitable mixture with air. Vapors may travel considerable distances and flash back if ignited.

**Hazardous Combustion Products:** Oxides of: Carbon. Nitrogen.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protective equipment identified in Section 8.

# MATERIAL SAFETY DATA SHEET

Trade Name: **VERSAMUL\***

Revision Date: 01/28/2008

MSDS NO. 10147

Page 3/6

## Spill Procedures:

Evacuate surrounding area, if necessary. Keep personnel removed and upwind of spill. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Shut off leak if it can be done safely. Contain spilled material. Absorb in vermiculite, dry sand or earth. Place into containers for disposal. Use non-sparking or explosion proof means to transfer material to containers. Note that flammable/combustible vapors may form an ignitable mixture with air. Vapors may travel considerable distances from spill and flash back, if ignited.

## Environmental Precautions:

Do not allow to enter sewer or surface and subsurface waters. 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. Ground and bond containers when transferring material. 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
Fatty acids derivatives		40 - 80	NA	NA	NA	(3) Oil mist.
Petroleum distillates, hydrotreated light	64742-47-8	20 - 60	NA	NA	NA	(3) Oil mist.
Polyamide		5 - 15	NA	NA	NA	(3) Oil mist.

### Notes

(3) For Oil mist, mineral: ACGIH TLV 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>; OSHA PEL 5 mg/m<sup>3</sup>

**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.

# MATERIAL SAFETY DATA SHEET

Trade Name: **VERSAMUL\***

Revision Date: 01/28/2008

Page 4/6

MSDS NO. 10147

## 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 re-usable particulate respirator.

This product contains nitrogen compounds which may, in some circumstances, form ammonia or amine compounds. If exposed to ammonia or amine compounds from this product use a NIOSH/MSHA-approved respirator with an Ammonia/Methylamine cartridge.

**General Hygiene Considerations:** Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded, if contaminated with product.

"Safe Handling Guide for Oil-Base and Synthetic-Base Fluid Systems" pamphlet is available from M-I's Occupational Health Department.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Black
Odor	Hydrocarbon
Physical State:	Liquid
pH:	ND
Specific Gravity (H <sub>2</sub> O = 1):	0.8 - 1.0
Solubility (Water):	Insoluble
Flash Point: F (C):	145 - 200F (65 - 93C)
Melting/Freezing Point:	ND
Boiling Point:	>370F (188C)
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:	Oxidizers.
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
Fatty acids derivatives		Oral LD50: >5000 mg/kg (rat)

# MATERIAL SAFETY DATA SHEET

Trade Name: **VERSAMUL\***

Revision Date: 01/28/2008

MSDS NO. 10147

Page 5/6

Ingredient	CAS No.	Acute Data
Petroleum distillates, hydrotreated light	64742-47-8	Oral LD50: >39.9 g/kg (rat); Dermal LD50: 2.0 - 4.0 g/kg (rabbit); Inhalation LC50: >24.1 mg/l/1H (rat)
Polyamide		Oral LD50: >2020 mg/kg (rat)

Ingredient	Component Toxicological Summary
Fatty acids derivatives	Blood chemistry and effects to the lymph system, spleen, liver, adrenal glands and thyroid were observed in a 13 week oral study in rats. The level of exposures were 1 and 5% of the diet (approx. 1000 and 5000 mg.kg.day). The no-effect-level was 0.1% (approx. 100 mg/kg/day). (EPA HPV summary 03/18/2002, AR201-13651B)

## Product Toxicological Information:

No toxicological data is available for this product.

## 12. ECOLOGICAL INFORMATION

Ingredient	CAS No.	Data
Petroleum distillates, hydrotreated light	64742-47-8	LC50 48H static: 7500 ug/l (Danio rerio (zebra danio)); LC50 4D static: 5900 ug/l (Lepomis macrochirus (bluegill)); LC50 24H static: 3200 ug/l (Oncorhynchus mykiss (rainbow trout)); LC50 48H static: 8800 ug/l (Poecilia reticulata (guppy))

**Product Ecotoxicity Data:** Contact M-I Environmental Affairs Department for available product ecotoxicity data.

**Biodegradation:** ND

**Bioaccumulation:** ND

**Octanol/Water Partition** ND

**Coefficient:**

## 13. DISPOSAL CONSIDERATIONS

**Waste Classification:** ND

**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 under TDG, IMDG, ICAO/IATA. Not regulated for U.S. ground transport in non-bulk containers (<119 gallons). When shipped in U.S. in bulk containers, Combustible liquid, n.o.s., (contains petroleum distillates), NA1993, PG III

**Packaging Authorizations:**

49 CFR 173.150, 173.203, 173.241

**Emergency Response Guide No.:**

128

# MATERIAL SAFETY DATA SHEET

MSDS NO. 10147  
UN PIN No:  
IMDG Shipping Description:  
ICAO/IATA Shipping Description:

Trade Name: **VERSAMUL\***  
Revision Date: 01/28/2008  
Not regulated.  
Not regulated.  
Not regulated.

Page 6/6

## 15. REGULATORY INFORMATION

### U.S. Federal and State Regulations

**SARA 311/312 Hazard Categories:** Fire hazard. Immediate (acute) health hazard.

**SARA 302/304, 313; CERCLA RQ, Note:** If no components are listed below, this product is not subject to the referenced California Proposition 65: 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 - Contains a component(s) that is not listed.  
Canada DSL - Components are listed or exempt from listing.  
China Inventory - Components are listed or exempt from listing.  
European Union EINECS - Contains a component(s) that is a "No Longer Polymer".  
Japan METI ENCS - Contains a component that is not listed.  
Korea TCCL ECL - 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:** B3 D2B

## 16. OTHER INFORMATION

The following sections have been revised: 1, 8, 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.