SDS no. PID11380
Version 11
Revision date 14/Jan/2019
Supersedes date 02/Jun/2017

Safety Data Sheet
VERSATHIN* HF

1. Identification of the Substance/Preparation and of the Company/Undertaking

1.1 Product identifier

Product name VERSATHIN* HF

Product code PID11380

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Drilling fluid additive.

Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
M-I L.L.C.
P.O.Box 42842
Houston, TX 77242
www.miswaco.slb.com
Telephone: 1 281-561-1511

M-I SWACO, A Schlumberger Company
200 - 125, 9th Avenue SE
Calgary, Alberta T2G 0P6, Canada
Telephone: 1-780-962-8221

E-mail address sdsmi@slb.com

Prepared by
Global Regulatory Compliance - Chemicals (GRC - Chemicals)

1.4 Emergency Telephone Number

Emergency telephone (24 Hour) Asia Pacific +65 3158 1074, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, USA +1 281 561 1600, Canada +1 800 579 7421, Argentina: +54 11 5984 3690, Brazil : 0800-720-8000/0800-777-2323 (WGRA)

2. Hazards Identification

2.1 Classification of the substance or mixture

GHS - Classification

Health hazards

Aspiration toxicity	Category 1
Skin corrosion/irritation	Category 2

Environmental hazards Not classified

Physical Hazards

Flammable Liquids	Category 4

2.2 Label elements

Signal word
DANGER

Hazard Statements
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H227 - Combustible liquid

Precautionary Statements
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280 - Wear protective gloves and eye/face protection
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P331 - Do NOT induce vomiting
P370 + P378 - In case of fire: Use dry sodium carbonate to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool

P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P321 - Specific treatment (see supplemental first aid instructions on this label)
P362 - Take off contaminated clothing and wash before reuse
P220 - Keep/Store away from combustible materials

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity.

3. Composition/information on Ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical Name	CAS No	Weight-%
Distillates, petroleum, hydrotreated light	64742-47-8	80 - 100
Polymeric fatty ester	Proprietary	10 - 30

Comments
The exact percentage (concentration) of composition has been withheld as a trade secret

HMIRA Registration Number: 11322 **Filing Date:** 08/May/2017

4. First Aid Measures

4.1 First aid measures

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped or heart has stopped, trained personnel should immediately administer artificial respiration or CPR, as required.

Ingestion IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician or poison control center immediately. Do not give anything by mouth to an unconscious person. Obtain medical attention. If vomiting occurs spontaneously, minimize the risk of aspiration by properly positioning the affected person.

Skin contact In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Seek immediate medical attention/advice.

Eye Contact Rinse immediately with plenty of water, also under the eyelids. Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Immediate medical attention is required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms

Inhalation Please see Section 11. Toxicological Information for further information.

Ingestion Please see Section 11. Toxicological Information for further information.

Skin contact Please see Section 11. Toxicological Information for further information.

Eye contact Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically
Keep victim under observation
Aspiration may cause severe lung damage. Evacuate stomach in a way which avoids aspiration.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media
Water Fog, Alcohol Foam, CO_2, Dry Chemical.

Extinguishing media which must not be used for safety reasons
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Unusual fire and explosion hazards
Combustible liquid. Vapors may form explosive mixtures with air. Vapors may travel considerable distance to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers,

basements, tanks). Heating of containers may cause pressure rise, with risk of bursting.

Hazardous combustion products
When heated strongly or burned, oxides of carbon and harmful organic chemical fumes are released, Aldehydes.

5.3 Advice for firefighters

Special protective equipment for fire-fighters
As in any fire, wear self-contained breathing apparatus and full protective gear.

Special
Cool fire-exposed containers using water spray.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with heat, sparks, open flame, and static discharge. Prevent further leakage or spillage if safe to do so. Contaminated surfaces will be extremely slippery. Evacuate and ventilate the area. Avoid contact with skin, eyes and inhalation of vapors.

6.2 Environmental precautions

Should not be released into the environment. Do not allow spilled material to enter sewers, storm drains or surface waters. As local regulations may vary; all waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations.

Environmental exposure controls
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dike to collect large spills. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Take precautionary measures against static discharges. Use non-sparking tools and equipment.

6.4 Reference to other sections

See section 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Ensure adequate ventilation. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flame. No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions	Keep airborne concentrations below exposure limits. Ensure adequate ventilation.
Storage precautions	Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Avoid heat, flames and other sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	Argentina - Occupational Exposure Limits - TWAs (CMPs)	Brazil - Occupational Exposure Limits - TWAs (LTs)	Mexico - Occupational Exposure Limits - TWAs (LMPE-PPTs)
Distillates, petroleum, hydrotreated light	Not determined	Not determined	Not determined	Not determined	Not determined
Polymeric fatty ester	Not determined	Not determined	Not determined	Not determined	Not determined

IDLH (Immediately Dangerous to Life or Health)
Immediately Dangerous to Life or Health (IDLH) is established by the US National Institute for Occupational Safety and Health (NIOSH). The purpose of establishing an IDLH value is to ensure that the worker can escape from a given contaminated environment in the event of failure of the most protective respiratory protection equipment. In the event of failure of respiratory protection equipment every effort should be made to exit immediately.

Chemical Name	IDLH (Immediately Dangerous to Life or Health)
Distillates, petroleum, hydrotreated light 64742-47-8	-
Polymeric fatty ester	-

8.2 Exposure controls

A risk assessment is recommended to be performed by a qualified and trained personnel to analyze the worksite and recommends the appropriate controls such as engineering controls, work practice controls, and administrative controls as primary means of reducing employee exposure. When there is a remaining hazards after applying the primary controls, Personal Protective Equipment (PPE) must be used.

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering Controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye protection	Tightly fitting safety goggles.
Hand protection	Viton polyvinyl alcohol or nitrile-butyl rubber gloves
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 an organic vapor cartridge with a P-95 pre-filter attached. In work environments containing oil mist/aerosol, use an organic vapor cartridge with a P-95 pre-filter attached.If exposed to vapors from this product, use a NIOSH/MSHA-approved respirator with an organic vapor cartridge.
Skin and body protection	Wear appropriate personal protective clothing to prevent skin contact, Eye wash and emergency shower must be available at the work place.
Hygiene Measures	Avoid contact with skin, eyes and clothing, Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	No information available
Appearance	No information available
Color	Black - Dark amber
Odor	Hydrocarbon-like
Odor threshold	Not applicable

Property	**Values**	**Remarks**
pH	No information available	
pH @ dilution	No information available	
Melting / freezing point	No information available	
Boiling point/range	> 200 °C / 392 °F	
Flash point	> 65 °C / > 149 °F	
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	0.75 - 1.00	
Bulk density	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	6 cSt @ 40 °C	
Dynamic viscosity	No information available	
log Pow	No information available	
Explosive properties	Not applicable	
Oxidizing properties	None known.	

9.2 Other information

Pour point	-9.4 °C / 15 °F
Molecular weight	No information available
VOC content(%)	None
Density	No information available

Comments
The data listed above are typical physical and chemical properties and should not be construed as product specification.

10. Stability and Reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization
Hazardous polymerization does not occur.

10.4 Conditions to avoid

Keep away from sources of ignition - No smoking.

10.5 Incompatible materials

Strong oxidizing agents. Acids. Bases.

10.6 Hazardous decomposition products

Carbon oxides (COx).

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Inhalation May cause irritation of respiratory tract. Vapors inhaled in high concentration have a narcotic effect on the central nervous system. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

Eye contact May cause irritation.

Skin contact Causes skin irritation. Prolonged skin contact may defat the skin and produce dermatitis. Components of the product may be absorbed into the body through the skin.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates, petroleum, hydrotreated light	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Polymeric fatty ester	No data available	No data available	No data available

Chemical Name	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Distillates, petroleum, hydrotreated light	No data available	No data available	No data available	No data available
Polymeric fatty ester	No data available	No data available	No data available	No data available

Sensitization Not classified.

Mutagenic effects No evidence of mutagenic properties.

Carcinogenicity No evidence of carcinogenic properties.

Reproductive toxicity No evidence of toxicity to reproduction.

Developmental toxicity Not known to cause birth defects or have a deleterious effect on a developing fetus.

Routes of exposure Inhalation. Skin contact. Eye contact.

Routes of entry Inhalation.

Specific target organ toxicity - Single exposure Not classified

Specific target organ toxicity - Repeated exposure Not classified.

Neurological effects Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred

vision, slurred speech, giddiness, tremors and convulsions.

Target organ effects Central nervous system. Heart. Liver. Kidney. Spleen. Blood.

Aspiration hazard May be fatal if swallowed and enters airways.

12. Ecological Information

12.1 Toxicity

Toxicity to algae
See component information below.

Toxicity to fish
See component information below.

Toxicity to daphnia and other aquatic invertebrates
See component information below.

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Distillates, petroleum, hydrotreated light	= 45 mg/L LC50 Pimephales promelas 96 h = 2.2 mg/L LC50 Lepomis macrochirus 96 h = 2.4 mg/L LC50 Oncorhynchus mykiss 96 h	No information available	= 4720 mg/L LC50 Den-dronereides heteropoda 96 h
Polymeric fatty ester	No information available	No information available	No information available

12.2 Persistence and degradability

No product level data available.

12.3 Bioaccumulative potential

No product level data available.

12.4 Mobility

No information available.

12.5 Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)
This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

12.6 Other adverse effects.

None known.

13. Disposal Considerations

13.1 Waste treatment methods

Disposal Method It is the ultimate responsibility of the waste generator to determine at the time of disposal whether this product and/or "empty" container residue meets any hazardous waste criteria. Incineration recommended in approved incinerator according to federal, state, and local regulations. As local regulations may vary; all waste must be disposed/recycled/reclaimed

in accordance with federal, state, and local environmental control regulations.

Contaminated packaging Do not re-use empty containers. Empty containers may contain flammable or explosive vapors. Do not burn, or use a cutting torch on, the empty drum. Dispose of in accordance with local regulations.

14. Transport information

14.1. UN number

UN No. (DOT)	NA1993
UN No. (MT/ANTT)	Not regulated
UN No. (TDG)	Not regulated
UN/ID No. (ADR/RID/ADN/ADG)	Not regulated
UN No. (IMDG/ANTAQ)	Not regulated
UN No. (ICAO/ANAC)	Not regulated
UN No. (DPC)	Not regulated

14.2. UN proper shipping name

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

14.3 Hazard class(es)

DOT Hazard class	Combustible liquid
ANTT Hazard class	Not regulated
TDG Hazard class	Not regulated
ADR/RID/ADN/ADG Hazard class	Not regulated
IMDG/ANTAQ Hazard class	Not regulated
ICAO/ANAC Hazard class/division	Not regulated
DPC Hazard class	Not regulated

14.4 Packing group

DOT Packing group	PG III
ANTT Packing group	Not regulated
TDG Packing group	Not regulated
ADR/RID/ADN/ADG Packing group	Not regulated
IMDG/ANTAQ Packing group	Not regulated
ICAO/ANAC Packing group	Not regulated
DPC Packing group	Not regulated

14.5 Environmental hazard

Marine pollutant No

14.6 Special precautions

Not applicable

15. Regulatory Information

International inventories

USA (TSCA)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies

Japan (ENCS)	Does not comply
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Does not comply
New Zealand (NZIoC)	Complies

Europe - REACH

All products supplied from the European Economic Area (EEA) are compliant with the REACH Regulation EC 1907/2006.For products supplied from the EEA, Schlumberger and/or its suppliers have pre-registered and is registering all of the substances that it and/or its suppliers manufactures in or imports into the EEA that are subject to Title II of the REACH Regulation. All products supplied from outside the EEA are subject to REACH only if imported into the EEA. The importer of the products must comply with REACH for each imported substance. Contact REACH@slb.com for REACH information.

U.S. Federal and State Regulations

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

Chemical Name	SARA 302 / TPQs	SARA 313	CERCLA RQ
Distillates, petroleum, hydrotreated light	N/A	N/A	N/A
Polymeric fatty ester	N/A	N/A	N/A

California Proposition 65

This product does not contain chemical[s] which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Canadian Classification

This Safety Data Sheet has been prepared in compliance with the Hazardous Products Regulations.

16. Other Information

Supersedes date	02/Jun/2017
Revision date	14/Jan/2019
Version	11
This SDS has been revised in the following section(s)	3, 16

HMIS classification

Health	2*
Flammability	2
Physical hazard	0
PPE	X

N/A - Not Applicable, N/D - Not Determined.

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