SDS no. PID11380
Version 8
Revision date 23-Aug-2018
Supersedes Date: 06-Dec-2016

Safety Data Sheet
VERSATHIN* HF

1. Identification of the substance/mixture 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 Thinner.

Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
M-I Drilling Fluids UK Limited
Westhill Business Park
Westhill AB32 6JL Aberdeenshire
Scotland United Kingdom

+47 51577424

SDS@slb.com

1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

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 Not classified

2.2 Label elements

Signal word
DANGER

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

Precautionary statements
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P331 - Do NOT induce vomiting
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Supplementary precautionary statements
P264 - Wash face, hands and any exposed skin thoroughly after handling
P362 + P364 - Take off contaminated clothing and wash it before reuse

Contains
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*

12-Hydroxystearic acid, oligomers, reaction products with stearic acid

(2-methoxymethylethoxy)propanol

2.3 Other hazards

Not classified as PBT/vPvB by current EU criteria
Combustible liquid

3. Composition/information on Ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical Name	EC No	CAS No	Weight-%
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	926-141-6	RM1004246	60-100
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	500-140-7	58128-22-6	10-30
(2-methoxymethylethoxy)propanol	252-104-2	34590-94-8	1-5

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.

Ingestion Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, minimize the risk of aspiration by properly positioning the affected person. Seek medical attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation persists.

Eye Contact Promptly wash eyes with lots of water while lifting eye lids. Remove contact lenses, if worn. Get medical attention if any discomfort continues.

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

General advice The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.

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.

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
Vapors may form explosive mixture with air. Vapors may travel considerable distance to source of ignition and flash back.

Hazardous combustion products
Fire or high temperatures create: Carbon oxides (COx), Hydrocarbons, 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 Fire-Fighting Procedures
Containers close to fire should be removed immediately or cooled with water.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Use personal protective equipment. See also section 8.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

Environmental exposure controls
Avoid release to the environment. 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. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up
Take precautionary measures against static discharges. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After cleaning, flush away traces with water.

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. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Avoid spills and splashing during use.

Hygiene Measures
Use good work and personal hygiene practices to avoid exposure. When using do not smoke, eat or drink. Wash hands and face before breaks and immediately after handling the product Remove contaminated clothing

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions	Ensure adequate ventilation. Take precautionary measures against static discharges. Keep airborne concentrations below exposure limits.
Storage precautions	Keep containers tightly closed in a dry, cool and well-ventilated place Avoid heat, flames and other sources of ignition. Exposure to air Avoid contact with: Excessive heat Acids Strong oxidizing agents Strong bases Strong reducing agents
Storage class	Chemical storage.
Packaging materials	Use specially constructed containers only.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure limits	Oil mist (mineral) workplace exposure limits are currently under review by legislative authorities. This workplace exposure limit (WEL) standard is applicable to highly refined

mineral oils and is provided as a guidance limit only LT. EXP = 5mg/m³ and ST. EXP = 10mg/m³.

Component Information

Chemical Name	Arabic	Australia	Egypt
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	Not determined	Not determined	Not determined
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	150 ppm STEL 909 mg/m³ STEL 100 ppm TWA 606 mg/m³ TWA	50ppmTWA 308mg/m³TWA	Not determined
Chemical Name	**India**	**Indonesian**	**Japan**
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	Not determined	Not determined	Not determined
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	Not determined	100 ppm TWA 606 mg/m³ TWA Skin notation 150 ppm STEL 909 mg/m³ STEL	Not determined
Chemical Name	**Kazakhstan**	**Kuwait**	**New Zealand**
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	Not determined	Not determined	Not determined
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	Not determined	Not determined	150 ppm STEL 909 mg/m³ STEL 100 ppm TWA 606 mg/m³ TWA Possibility of significant uptake through the skin
Chemical Name	**Malaysia**	**Philippines**	**Russia**
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	Not determined	Not determined	Not determined
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	100 ppm TWA 606 mg/m³ TWA Skin notation	skin - potential for cutaneous absorption 100 ppm TWA 600 mg/m³ TWA	Not determined
Chemical Name	**Thailand**	**Vietnam**	**Turkey**
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	Not determined	Not determined	Not determined
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	Not determined	Not determined	Skin 50 ppm TWA 308 mg/m³ TWA

8.2 Exposure controls

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 Mechanical ventilation or local exhaust ventilation is required.

Personal protective equipment

Eye protection	Use eye protection according to EN 166, designed to protect against liquid splashes Tightly fitting safety goggles Safety glasses with side-shields
Hand protection	Wear chemically resistant gloves (tested to EN 374) in combination with 'basic' employee training Impervious gloves made of: Neoprene PVC Rubber Break through time >480 minutes Glove thickness >=0.4 mm Be aware that liquid may penetrate the gloves. Frequent change is advisable.
Respiratory protection	No personal respiratory protective equipment normally required In case of insufficient ventilation wear suitable respiratory equipment Respirator with a vapor filter (EN 141) Use respirator with organic vapor protection (A, brown) At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.
Skin and body protection	Wear suitable protective clothing Eye wash and emergency shower must be available at the work place.
Hygiene Measures	Wash hands before eating, drinking or smoking Remove and wash contaminated clothing before re-use

8.2.3 Environmental exposure controls

Environmental exposure	Use appropriate containment to avoid environmental contamination See section 6 for more information

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Odor	Hydrocarbon-like
Color	Dark amber
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 - 93 °C / 145 - 200 °F	
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Bulk density	No information available	
Relative 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 Vapours may form explosive mixtures with air
Oxidizing properties None known.

9.2 Other information

Pour point -9.4 °C / 15 °F
Molecular weight No information available
VOC content(%) None
Density 0.75 - 0.90 g/mL

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

Vapours may form explosive mixtures with air.

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

Avoid heat, flames and other sources of ignition. Excessive heat. Exposure to air. Do not allow evaporation to dryness.

10.5 Incompatible materials

Acids. Strong oxidizing agents. Strong bases. Strong reducing agents.

10.6 Hazardous decomposition products

See Section 5.2.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Inhalation Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye contact Contact with eyes may cause irritation.

Skin contact Causes skin irritation. May be absorbed through the skin in harmful amounts. Repeated exposure may cause skin dryness or cracking.

Ingestion May be fatal if swallowed and enters airways. Potential for aspiration if swallowed.

Aspiration may cause pulmonary edema and pneumonitis.

Unknown acute toxicity Not applicable.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	No data available	No data available	No data available
(2-methoxymethylethoxy)propanol	= 5400 µL/kg (Rat)	= 9500 mg/kg (Rabbit)	LC50 > 275 ppm Literature data

Sensitization This product does not contain any components suspected to be sensitizing.

Mutagenic effects This product does not contain any known or suspected mutagens.

Carcinogenicity This product does not contain any known or suspected carcinogens.

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.

Routes of exposure Skin contact. Ingestion.

Routes of entry Inhalation. Skin absorption.

Specific target organ toxicity - Single exposure Not classified

Specific target organ toxicity - Repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Other information Key literature references and sources for data. See Section 16 for more information.

12. Ecological Information

12.1 Toxicity

The product component(s) are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Toxicity to algae
This product is not considered toxic to algae.

Toxicity to fish
This product is not considered toxic to fish.

Toxicity to daphnia and other aquatic invertebrates
This product is not considered toxic to invertebrates.

Toxicology data for the components

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	LC50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: WAF Method: OECD Test Guideline 203 Remarks: Information given is based on data obtained from similar substances.	EL50 (Pseudokirchneriella subcapitata (green algae)): > 1 - 3 mg/l Exposure time: 72 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 201 Remarks: Information given is based on data obtained from similar substances.	EL50 (Water flea (Daphnia magna)): 1,4 mg/l Exposure time: 48 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 202 Remarks: Information given is based on data obtained from similar substances.
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	LC 50 (Fish): 1.614 mg/l Exposure time: 48 h LC 50 (Pimephales promelas (fathead minnow)): > 10.000 mg/l Exposure time: 96 h Test Type: static test	EC 50 (Pseudokirchneriella subcapitata (green algae)): > 969 mg/l Exposure time: 72 h Test Type: Growth inhibition	LC 50 (Water flea (Daphnia magna)): 1.919 mg/l Exposure time: 48 h
(2-methoxymethylethoxy)propanol	> 10000 mg/L LC50 Pimephales promelas 96 h	OECD 201 Algae EC50 > 969 mg/l - Duration h: 72 Literature data	= 1919 mg/L LC50 Daphnia magna 48 h

12.2 Persistence and degradability

Not readily biodegradable. See component information below.

Chemical Name	Persistence and degradability
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	Inherently biodegradable OECD 301F : 58.6% Duration 28 days
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	Moderate biodegradation Test OECD 301C : 57% Duration 28 days
(2-methoxymethylethoxy)propanol	Readily biodegradable

12.3 Bioaccumulative potential

The product contains potentially bioaccumulating substances. See component information below.

Chemical Name	Bioaccumulation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	No information available
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	No information available
(2-methoxymethylethoxy)propanol	No information available

12.4 Mobility

Mobility
Insoluble in water. See component information below.

Chemical Name	Mobility
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	No information available
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	No information available
(2-methoxymethylethoxy)propanol	Completely soluble

Mobility in soil
See component information below.

Chemical Name	Mobility in soil
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics*	No information available
12-Hydroxystearic acid, oligomers, reaction products with stearic acid	No information available
(2-methoxymethylethoxy)propanol	No information available

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects.

None known.

12.7 Other information

Key literature references and sources for data. See Section 16 for more information.

13. Disposal considerations

13.1 Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal.

14. Transport information

14.1. UN number

Not regulated

14.2. UN proper shipping name

The product is not covered by international regulation on the transport of dangerous goods

14.3 Hazard class(es)

ADR/RID/ADN/ADG Hazard class Not regulated
IMDG/ANTAQ Hazard class Not regulated
ICAO/ANAC Hazard class/division Not regulated

14.4 Packing group

ADR/RID/ADN/ADG Packing group Not regulated
IMDG/ANTAQ Packing group Not regulated
ICAO/ANAC Packing group Not regulated

14.5 Environmental hazard

No

14.6 Special precautions

Not applicable

14.7 Transport in bulk according to Annex I/II of MARPOL 73/78 and the IBC Code
Please contact SDS@slb.com for info regarding transport in Bulk.

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

International inventories

USA (TSCA)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Does not comply
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	Complies

CAS Number 64742-47-8 can be used to identify the substance given a list number in section 3 in areas not subject to the REACH regulation.

16. Other Information

Prepared by	Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Anne Karin (Anka) Fosse
Supersedes Date:	06-Dec-2016
Revision date	23-Aug-2018
Version	8
This SDS has been revised in the following section(s)	All sections. No changes with regard to classification have been made.

Key literature references and sources for data
www.ChemADVISOR.com
Supplier
National Chemical Inventories
National regulatory information
National occupational exposure limits

HMIS classification

Health	2*
Flammability	2
Physical hazard	0
PPE	X

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