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

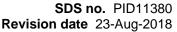
3.2 Mixtures

Chemical Name	EC No	CAS No	Weight-%
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <	926-141-6	RM1004246	60-100
2% aromatics*			
12-Hydroxystearic acid, oligomers, reaction products with	500-140-7	58128-22-6	10-30
stearic acid			
(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, CO2, 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.

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.

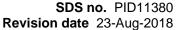
Component Information

Chemical Name	Arabic	Australia	Egypt
Hydrocarbons, C11-C14, n-alkanes, soalkanes, 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, soalkanes, 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, soalkanes, 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, soalkanes, 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, soalkanes, 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

Respiratory protection

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.

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
Odor
Hydrocarbon-like
Color
Odor threshold
No information available
Hydrocarbon-like
Dark amber
Not applicable

<u>Property</u> <u>Values</u> <u>Remarks</u>

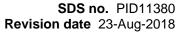
pH No information available
pH @ dilution No information available
Melting / freezing point No information available
Boiling point/range > 200 °C / 392 °F
Flash point 65 - 93 °C / 145 - 200 °F
Evaporation rate (BuAc =1) No information available

Flammability (solid, gas) Not applicable

Flammability Limit in Air

Upper flammability limit
Lower flammability limit
Not applicable
Not applicable

Vapor pressure
Vapor density
Specific gravity
Bulk density
Relative density
Water solubility
No information available
No information available
No information available
No information available
Insoluble in water
No information available





@ 40 °C

Autoignition temperature
Decomposition temperature
Kinematic viscosity

No information available
No information available
6 cSt

Kinematic viscosity
Dynamic viscosity
No information available
No information available

Explosive properties Vapours may form explosive mixtures with air

Oxidizing properties None known.

9.2 Other information

Pour point $-9.4 \,^{\circ}\text{C} / 15 \,^{\circ}\text{F}$

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

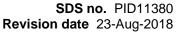
Inhalation Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye contact Contact with eyes may cause irritation.

Skin contactCauses 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

Specific target organ toxicity -

Repeated exposure

Not classified

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

12.2 Persistence and degradability

Not readily biodegradable. See component information below.

Chemical Name	Persistence and degradability
Hydrocarbons, C11-C14, n-alkanes,	Inherently biodegradable OECD 301F: 58.6% Duration 28 days
isoalkanes, cyclics, < 2% aromatics*	
12-Hydroxystearic acid, oligomers, reaction	Moderate biodegradation Test OECD 301C : 57% Duration 28 days
products with stearic acid	
(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,	No information available
isoalkanes, cyclics, < 2% aromatics*	
12-Hydroxystearic acid, oligomers, reaction	No information available
products with stearic acid	
(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,	No information available
isoalkanes, cyclics, < 2% aromatics*	
12-Hydroxystearic acid, oligomers, reaction	No information available
products with stearic acid	
(2-methoxymethylethoxy)propanol	Completely soluble

Mobility in soil

See component information below.



Chemical Name	Mobility in soil
Hydrocarbons, C11-C14, n-alkanes,	No information available
isoalkanes, cyclics, < 2% aromatics*	
12-Hydroxystearic acid, oligomers, reaction	No information available
products with stearic acid	
(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
IMDG/ANTAQ Hazard class
ICAO/ANAC Hazard class/division
Not regulated
Not regulated

14.4 Packing group

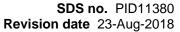
ADR/RID/ADN/ADG Packing group
IMDG/ANTAQ Packing group
ICAO/ANAC Packing group
Not regulated
Not regulated
Not regulated

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 Complies Korean (KECL) 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.

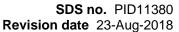
Key literature references and sources for data

www.ChemADVISOR.com Supplier National Chemical Inventories National regulatory information National occupational exposure limits

HMIS classification

Health	2*
Flammability	2
Physical hazard	0
PPÉ	Χ

^{*}A mark of M-I L.L.C., a Schlumberger Company





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