Safety Data Sheet
NOVATEC* F

1. Identification of the substance/preparation and of the Company/undertaking

1.1 Product identifier

Product name NOVATEC* F
Product code PID1130

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

Recommended Use Fluid loss reducer.

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

Norway	Poison information centre: +47 22 59 13 00

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Health hazards

Skin sensitisation	Category 1

Environmental hazards Not classified

Physical Hazards Not classified

2.2 Label elements

Signal word
WARNING

Hazard statements
H317 - May cause an allergic skin reaction

Precautionary Statements - EU (§28, 1272/2008)
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves and eye/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Supplementary precautionary statements
P363 - Wash contaminated clothing before reuse

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Contains
Tall oil derivative

(2-methoxymethylethoxy)propanol

Rosin (impurity)

2.3 Other hazards

Not classified as PBT/vPvB by current EU criteria

Australian statement of hazardous/dangerous nature
Classified as Hazardous according to the criteria of NOHSC.
HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3. Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical Name	EC No	CAS No	Weight-%	Regulation (EC) No 1272/2008	REACH registration number

Tall oil derivative	Listed	Proprietary	60-100	Not classified	No data available
(2-methoxymethylethoxy)propanol	252-104-2	34590-94-8	>20 - <40	Not classified	01-2119450011-60-xxxx
Rosin (impurity)	232-475-7	8050-09-7	<10	Skin Sens. 1 (H317)	No data available

Comments
The product contains other ingredients which do not contribute to the overall classification.

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. Seek medical attention if irritation occurs.

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. Continue to rinse for at least 15 minutes. 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 spray, Water Fog, Alcohol Foam, CO_2, Dry Chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Unusual fire and explosion hazards
None known.

Hazardous combustion products
Thermal decomposition can lead to release of irritating gases and vapours

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

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. Dyke far ahead of liquid spill for later disposal.

Methods for cleaning up
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. Persons susceptible to allergic reactions should not handle this product.

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. Keep airborne concentrations below exposure limits.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place Avoid contact with: Strong oxidising agents Strong reducing agents

Packaging materials Use specially constructed containers only Stainless steel, Mild steel.

7.3 Specific end uses

See Section 1.2.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure Limits No biological limit allocated

Component Information

Chemical Name	EU OEL - Third List	Austria	Australia	Denmark
Tall oil derivative	Not determined	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	50 ppm TWA 308 mg/m³ TWA Possibility of significant uptake through the skin	100 ppm STEL 614 mg/m³ STEL 50 ppm TWA 307 mg/m³ TWA	50ppmTWA 308mg/m³TWA	50 ppm TWA 309 mg/m³ TWA Potential for cutaneous absorption
Rosin (impurity)	Not determined	Not determined	0.1mg/m³TWA	Not determined
Chemical Name	**Malaysia**	**France**	**Germany**	**Hungary**
Tall oil derivative	Not determined	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	100 ppm TWA 606 mg/m³ TWA Skin notation	50 ppmTWA 308 mg/m³TWA	50 ppm TWA 310 mg/m³ TWA	308mg/m³TWA 308mg/m³STEL
Rosin (impurity)	Not determined	0.1 mg/m³TWA	Not determined	Not determined
Chemical Name	**New Zealand**	**Italy**	**Netherlands**	**Norway**
Tall oil derivative	Not determined	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	150 ppm STEL 909 mg/m³ STEL 100 ppm TWA 606 mg/m³ TWA Possibility of significant uptake through the skin	Not determined	300 mg/m³	50 ppm TWA 300 mg/m³ TWA 75 ppm STEL 375 mg/m³ STEL Skin
Rosin (impurity)	Not determined	Not determined	Not determined	Not determined
Chemical Name	**Poland**	**Portugal**	**Romania**	**Russia**
Tall oil derivative	Not determined	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	480 mg/m³ STEL NDSCh mixture of isomers: Propanol, 1(or 2)-(2-methoxymethylethoxy)-, Propanol, 1-(1-methoxymethylethoxy) 240 mg/m³ TWA NDS mixture of isomers	Skin 150 ppm STEL VLE-CD 50 ppm TWA indicative limit value 308 mg/m³ TWA indicative limit value	50ppmTWA 308mg/m³TWA	Not determined
Rosin (impurity)	Not determined	Not determined	Not determined	4 mg/m³ MAC

				Allergenic substance
Chemical Name	**Spain**	**Switzerland**	**Turkey**	**UK**
Tall oil derivative	Not determined	Not determined	Not determined	Not determined
(2-methoxymethylethoxy)propanol	Skin 50 ppm TWA VLA-ED 308 mg/m³ TWA VLA-ED	50 ppm STEL 300 mg/m³ STEL 50 ppm TWA MAK 300 mg/m³ TWA MAK	Skin 50 ppm TWA 308 mg/m³ TWA	150 ppm STEL calculated 924 mg/m³ STEL calculated Skin 50 ppm TWA 308 mg/m³ TWA
Rosin (impurity)	Not determined	Not determined	Not determined	Not determined

Derived No Effect Level (DNEL)

Long term exposure systemic effects

(2-methoxymethylethoxy)propanol

Dermal	283 mg/kg
Inhalation	308 mg/m³

Predicted No Effect Concentration (PNEC)

(2-methoxymethylethoxy)propanol

Fresh Water	19 mg/l
Sea Water	1.9 mg/l
Freshwater sediment	70.2 mg/kg
Soil	2.74 mg/kg
Impact on sewage treatment	4168 mg/l
Intermittent release	190 mg/l

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 Nitrile PVC
Break through time >480 minutes
Glove thickness >=0.4 mm
Be aware that liquid may penetrate the gloves. Frequent change is advisable.

Respiratory protection
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 Local authorities should be advised if significant spillages cannot be contained 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
Odour	Characteristic
Colour	Dark brown
Odour threshold	Not applicable

Property	Values	Remarks
pH	No information available	
pH @ dilution		
Melting / freezing point	-5 °C / 23 °F	
Boiling point/range	180 °C / 365 °F	760 mmHg
Flash point	> 75 °C / > 167 °F	PMCC
Evaporation rate	No information available	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapour pressure	No information available	
Vapour density	No information available	
Specific gravity	No information available	
Bulk density	No information available	
Relative density	1.01 sg	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	29 cP	@ 25 °C
Dynamic viscosity	No information available	
log Pow	No information available	

Explosive properties	Not applicable
Oxidising properties	None known

9.2 Other information

Pour point	No information available
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 specific reactivity hazards associated with this product.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerisation
Hazardous polymerisation does not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Strong oxidising agents. 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 vapours in high concentration may cause irritation of respiratory system.

Eye contact May cause slight irritation.

Skin contact May cause an allergic skin reaction. May be absorbed through the skin in harmful amounts.

Ingestion Ingestion may cause stomach discomfort.

Unknown acute toxicity Not applicable.

LD50 Oral > 2000 mg/kg (rat) (based on components) (PRODUCT)

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Tall oil derivative	No data available	No data available	No data available
(2-methoxymethylethoxy)propanol	No data available	No data available	No data available

Rosin (impurity)	No data available	No data available	No data available

Sensitisation May cause sensitisation by skin contact.

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. Inhalation.

Routes of entry Skin absorption.

Specific target organ toxicity - Single exposure Not classified

Specific target organ toxicity - Repeated exposure Not classified.

Aspiration hazard Not applicable.

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
Tall oil derivative	No information available	No information available	No information available
(2-methoxymethylethoxy)propanol	No information available	No information available	No information available
Rosin (impurity)	No information available	No information available	No information available

12.2 Persistence and degradability

See component information below.

Chemical Name	Persistence and degradability
(2-methoxymethylethoxy)propanol	Readily biodegradable - Test : OECD 301F Duration 28 days 76% (Literature data)

Rosin (impurity)	Readily biodegradable - Test : OECD 301D Duration 28 days 71% (Literature data)

12.3 Bioaccumulative potential

See component information below.

Chemical Name	Bioaccumulation
(2-methoxymethylethoxy)propanol	Does not bioaccumulate - Test : Evaluation Notes: Literature data (estimated)
Rosin (impurity)	Does not bioaccumulate - Test BCF - Bioconcentration factor (BCF) : 56.23 Notes: Calculated data (in silico)

12.4 Mobility

Mobility
Insoluble in water.

Mobility in soil
See component information below.

Chemical Name	Mobility in soil
Tall oil derivative	No information available
(2-methoxymethylethoxy)propanol	Mobile - Notes: Calculated data (in silico)
Rosin (impurity)	Static - Test : Koc:5357 Notes: Calculated data (in silico)

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects.

None known.

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 transported/delivered using a registered waste carrier for local recycling or waste disposal.

EWC Waste Disposal No — According to the European Waste Catalogue, Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application

for which the product was used The following Waste Codes are only suggestions: EWC waste disposal No: 07 01 04 Waste Code: 7152 Organic waste without halogen.

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 Hazard class	Not regulated
ICAO Hazard class/division	Not regulated

14.4 Packing group

ADR/RID/ADN/ADG Packing Group	Not regulated
IMDG Packing group	Not regulated
ICAO 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

Australian Standard for the Uniform Scheduling of Drugs and Poisons

Rosin (impurity)
Schedule 5

New Zealand hazard classification Skin Sens. 1

HSNO approval no. HSR002503

Group number 6.5B

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals

Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)].
National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004) 3rd Edition].
National Occupational Health and Safety Commission's Exposure Standards for Atmospheric Contaminants in the occupational Environment [NOHSC:1003 (1995)].

Safe Work Australia.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/2013] (CLASS Regulations)

The Industry Code of Practice on Chemical Classification and Hazard Communication 2014 [P.U. (B) 128/2014] (ICOP)

International inventories

USA, Toxic Substances Control Act inventory (TSCA)	Complies
European Union - EINECS and ELINCS	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Does not comply
Inventory - Japan - Existing and New Chemicals list	Does not comply
China (IECSC)	Does not comply
Australia (AICS)	Complies
Korea (KECL)	Complies
Inventory - New Zealand - Inventory of Chemicals (NZIoC)	Complies

Europe - REACH
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Norway Pr. no. 45608

15.2 Chemical Safety Report

No information available

16. Other information

Prepared by Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Anne Karin (Anka) Fosse

Supercedes date 10/Nov/2014

Revision date	01/Dec/2017
Version	7
This SDS has been revised in the following section(s)	This SDS have been made in a new database and therefore a new layout. No changes with regard to classification have been made. Updated according to GHS/CLP.

Full text of H-Statements referred to under sections 2 and 3

H317 - May cause an allergic skin reaction

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