

Safety data sheet number 141653

Version 1

Revision date 08/Jul/2016

Supercedes date none



Safety Data Sheet SAFE-SURF* EU

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

1.1 Product identifier

Product name SAFE-SURF* EU
Product code 141653

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

Recommended use Completion fluid additive.

Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier

M-I Drilling Fluids UK Limited
C/O Schlumberger
Enterprise Drive
Westhill Industrial Estate
Westhill, AB32 6TQ
Scotland UK
+47 51577424

MISDS@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

Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
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2. Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Health hazards

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute inhalation toxicity - dust/mist	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Environmental hazards Not classified

Physical Hazards Not classified

2.2 Label Elements



Signal word

DANGER

Hazard statements

H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H332 - Harmful if inhaled

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P501 - Dispose of contents/container in accordance with local regulations.

Supplementary precautionary statements

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P330 - Rinse mouth
P332 + P313 - If skin irritation occurs: Get medical advice/ attention
P362 - Take off contaminated clothing and wash before re-use

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Contains

2-butoxyethanol

D-Glucopyranose, oligomeric, C8-10 glycosides

2.3 Other data

Not classified as PBT/vPvB by current EU criteria

3. Composition/information on ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
2-butoxyethanol	203-905-0	111-76-2	30-60	Xn; R20/21/22 Xi; R36/38	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	01-2119475108-36-x xxx
D-Glucopyranose, oligomeric, C8-10 glycosides	500-220-1	68515-73-1	5-10	Xi; R41	Eye Damage Cat. 1 (H318)	01-2119488530-36-x xxx

Comments

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

4. First aid measures

4.1 First Aid

Inhalation	Move to fresh air. Keep at rest. If breathing is difficult, (trained personnel should) give oxygen. Seek immediate medical attention/advice.
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 removing all contaminated clothes and shoes. Seek medical attention if irritation occurs.
Eye contact	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. Seek medical attention at once.

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.
Main 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

Use extinguishing media appropriate for surrounding material.

Extinguishing media which shall 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

Fire or high temperatures create: Carbon oxides (COx).

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 materials 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

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. Keep airborne concentrations below exposure limits.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage class Chemical storage.

Packaging material Use specially constructed containers only

7.3 Specific end uses

See Section 1.2.

8. Exposure controls/personal protection

8.1 Control parameters

Component	EU OEL - Third List	Austria	Australia	Denmark
2-butoxyethanol	50 ppm STEL 246 mg/m ³ STEL 20 ppm TWA 98 mg/m ³ TWA Possibility of significant uptake through the skin	40 ppm STEL 200 mg/m ³ STEL 20 ppm TWA 98 mg/m ³ TWA	50ppmSTEL 242mg/m ³ STEL 20ppmTWA 96.9mg/m ³ TWA skin notation	20 ppm 98 mg/m ³
D-Glucopyranose, oligomeric, C8-10 glycosides	Not determined	Not determined	Not determined	Not determined

Component	Malaysia	France	Germany	Hungary
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2-butoxyethanol	20 ppm TWA 96.7 mg/m ³ TWA Skin notation	50ppmSTEL 246mg/m ³ STEL 10 ppmTWA 49 mg/m ³ TWA	10 ppm TWA 49 mg/m ³ TWA	98mg/m ³ TWA 246mg/m ³ STEL
D-Glucopyranose, oligomeric, C8-10 glycosides	Not determined	Not determined	Not determined	Not determined

Component	New Zealand	Italy	Netherlands	Norway
2-butoxyethanol	25 ppm TWA 121 mg/m ³ TWA Possibility of significant uptake through the skin	Not determined	100 mg/m ³ TWA	10 ppm TWA 50 mg/m ³ TWA 20 ppm STEL 75 mg/m ³ STEL Skin
D-Glucopyranose, oligomeric, C8-10 glycosides	Not Determined	Not determined	Not determined	Not determined

Component	Poland	Portugal	Romania	Russia
2-butoxyethanol	200 mg/m ³ STEL Skin 98 mg/m ³ TWA	20 ppm TWA	50ppmSTEL 250mg/m ³ STEL 246mg/m ³ STEL 30ppmTWA 150mg/m ³ TWA	5 mg/m ³ MAC
D-Glucopyranose, oligomeric, C8-10 glycosides	Not determined	Not determined	Not determined	Not determined

Component	Spain	Switzerland	Turkey	UK
2-butoxyethanol	50 ppm VLA-EC 245 mg/m ³ VLA-EC Skin 20 ppm VLA-ED indicative limit value 98 mg/m ³ VLA-ED indicative limit value	20 ppm STEL 98 mg/m ³ STEL Skin 10 ppm MAK 49 mg/m ³ MAK	50 ppm STEL 246 mg/m ³ STEL Skin 20 ppm TWA 98 mg/m ³ TWA	50 ppm STEL 246 mg/m ³ STEL Skin 25 ppm TWA 123 mg/m ³ TWA
D-Glucopyranose, oligomeric, C8-10 glycosides	Not determined	Not determined	Not determined	Not determined

Derived No Effect Level (DNEL)

Short term exposure local effects

2-butoxyethanol

Inhalation 246 mg/m³

Short term exposure systemic effects

2-butoxyethanol

Dermal 89 mg/kg
Inhalation 1091 mg/m³

Long term exposure systemic effects

2-butoxyethanol

Dermal 125 mg/kg
Inhalation 98 mg/m³

D-Glucopyranose, oligomeric, C8-10 glycosides

Dermal	595000 mg/kg
Inhalation	420 mg/m ³

Predicted No Effect Concentration (PNEC)

2-butoxyethanol

Fresh Water	8.8 mg/l
Sea Water	0.88 mg/l
Fresh water sediment	34.6 mg/kg
Sea sediment	3.46 mg/kg
Soil	2.33 mg/kg
Impact on Sewage Treatment	463 mg/l
Intermittent release	9.1 mg/l

D-Glucopyranose, oligomeric, C8-10 glycosides

Fresh Water	0.176 mg/L
Sea Water	0.0176 mg/L
Fresh water sediment	1.516 mg/kg
Sea sediment	0.152 mg/kg
Soil	0.654 mg/kg
Impact on Sewage Treatment	560 mg/L
Intermittent release	0.27 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 measures to reduce exposure

Ensure adequate ventilation. Mechanical ventilation or local exhaust ventilation is required.

Personal protective equipment

Eye protection

Tightly fitting safety goggles. Safety glasses with side-shields.

Hand protection

Use protective gloves made of: Neoprene, Nitrile, Rubber, 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, 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.



9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Odour	Sweet
Colour	Colourless - light orange
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	3.2	
pH @ dilution		
Melting/freezing point	No information available	
Boiling point/range	No information available	
Flash Point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	Not Applicable	
Flammability Limits in Air		
Upper flammability Limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	~ 16 mmHg	@ 20 °C
Vapor density	No information available	
Specific gravity	No information available	
Bulk density	No information available	
Relative density	0.99 s.g	@ 20 °C.
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Viscosity, dynamic	No information available	
Log Pow	Not determined	
Explosive properties	Not Applicable	
Oxidizing properties	None known.	

9.2 Other information

Pour point	No information available
Molecular weight	No information available
VOC content(%)	none
Density VALUE	No information available

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 polymerization

Not known.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

No materials to be especially mentioned.

10.6 Hazardous decomposition products

See Section 5.2.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation	Harmful by inhalation. Inhalation of vapors in high concentration may cause shortness of breath (lung edema).
Eye contact	Causes serious eye damage.
Skin contact	Causes skin irritation. Components of the product may be absorbed into the body through the skin.
Ingestion	Harmful if swallowed.
Unknown acute toxicity	Not Applicable.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-butoxyethanol	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
D-Glucopyranose, oligomeric, C8-10 glycosides	No data available	No data available	No data available

Sensitisation 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 Inhalation. Eye contact. Skin contact. Ingestion.

Routes of entry Inhalation. Eye contact. Skin contact. Ingestion.

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. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

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.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
2-butoxyethanol	= 1490 mg/L LC50 Lepomis macrochirus 96 h = 2950 mg/L LC50 Lepomis macrochirus 96 h	No information available	= 1698 - 1940 mg/L (LC50; Daphnia magna) = 1720 mg/L (EC50; water flea)
D-Glucopyranose, oligomeric, C8-10 glycosides	No information available	No information available	No information available

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

12.4 Mobility in soil

Mobility

Soluble in water.

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 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 MISDS@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

2-butoxyethanol
Schedule 6

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.

Dutch Mining Regulations: In accordance with Mining Regulations 9.2 and Chapter 4 of the Working Conditions Decree.

International inventories

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

Contact REACH@miswaco.slb.com for REACH information.

15.2 Chemical Safety Report

No information available

16. Other information

Prepared by	Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Sandra McWilliam
Revision date	08/Jul/2016
Version	1

The following sections have been revised: New issue.

Text of R phrases mentioned in Section 3

R41 - Risk of serious damage to eyes

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

R36/38 - Irritating to eyes and skin

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

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H315 - Causes skin irritation

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H319 - Causes serious eye irritation

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Disclaimer

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