

Safety data sheet number PID729
Version 9
Revision date 15/Jun/2018
Supersedes Date: 07/Jul/2015



Safety Data Sheet GLYDRIL* MC

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

1.1 Product identifier

Product name GLYDRIL* MC
Product code PID729

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

Recommended Use Shale control agent.

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

Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Germany	+49 69 222 25285
Netherlands	National Poisons Information Centre (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
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

Serious eye damage/eye irritation	Category 1
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Environmental hazards Not classified

Physical Hazards Not classified

2.2 Label elements



Signal word
DANGER

Hazard Statements

H318 - Causes serious eye damage

Precautionary Statements

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Contains

Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy

2.3 Other hazards

Not classified as PBT/vPvB by current EU criteria

3. Composition/information on Ingredients

3.1 Substances

Chemical Name	EC No	CAS No	Weight-%	Component information	REACH registration number
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	500-012-0	9004-77-7	60-100	Eye Damage 1 (H318)	01-2119484615-3 0-xxxx

3.2 Mixtures

Not applicable

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 present and easy to do. Continue rinsing. 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.
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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.
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5. Firefighting 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

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 (CO_x).

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

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.

Storage precautions

Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid heat, flames and other sources of ignition. Avoid contact with: Oxidizing agents.

Storage class Chemical storage.

Storage class, TRGS 510, Germany Storage class 9: no classification

Packaging materials Use specially constructed containers only

7.3 Specific end uses

See Section 1.2.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits Contains no substances with occupational exposure limit values

No biological limit allocated

Component Information

Chemical Name	EU OEL - Third List	Austria	Denmark
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	Not determined	Not determined	Not determined
Chemical Name	France	Germany	Hungary
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	Not determined	Not determined	Not determined
Chemical Name	Italy	Netherlands	Norway
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	Not determined	Not determined	Not determined
Chemical Name	Poland	Portugal	Romania
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	Not determined	Not determined	Not determined
Chemical Name	Spain	Switzerland	UK
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	Not determined	Not determined	Not determined

Derived No Effect Level (DNEL)

Long term exposure systemic effects

Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy

Dermal 50 mg/kg

Inhalation 195 mg/m³

Predicted No Effect Concentration (PNEC)

Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy

Fresh Water 4.5 mg/L

Sea Water 0.31 mg/L

Freshwater sediment 6.6 mg/kg

Sea sediment 0.66 mg/kg

Soil 1.32 mg/kg

Impact on sewage treatment 500 mg/L

Intermittent release 24.9 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. Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment.

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: Butyl Neoprene Nitrile
Break through time >480 minutes
Glove thickness ≥0.4 mm

Respiratory protection

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	No information available
Odour	Mild
Colour	Straw Yellow - Opaque Brown
Odour threshold	Not applicable

Property	Values	Remarks
pH	7	
pH @ dilution	No information available	
Melting / freezing point	-35 °C / -31 °F	
Boiling point/range	270 - 355 °C / 518 - 671 °F	
Flash point	110 °C / 230 °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	0.0033 hPa	@ 25 °C
Vapour density	No information available	
Specific gravity	1.012	
Bulk density	No information available	
Relative density	No information available	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	7.3 cSt	@ 40 °C
Dynamic viscosity	9.2 - 9.4 mPa s	@ 20 °C
log Pow	Not determined	

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

Take precautionary measures against static charges. Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

Oxidizing 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	Causes serious eye damage.
Skin contact	Prolonged contact may cause redness and irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause central nervous system depression.
Unknown acute toxicity	Not applicable.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	2630 mg/kg (Rat)	3540 mg/kg bw (Rabbit)	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	Eye contact.
Routes of entry	No route of entry noted.
Specific target organ toxicity - Single exposure	Not classified
Specific target organ toxicity - Repeated exposure	Not classified.
Target organ effects	None known.
Aspiration hazard	Not applicable.
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
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	LC50 >1800 mg/l, 96h Scophthalmus maximus OECD 203	EC50: 2490 mg/l, 72h Selenastrum capricornutum OECD 201	EC50 >3200 mg/l, 48h Daphnia magna OECD 202

12.2 Persistence and degradability

Readily biodegradable.

Chemical Name	Persistence and degradability
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	OECD 301D 76%

12.3 Bioaccumulative potential

Does not bioaccumulate.

Chemical Name	Bioaccumulation
Poly(oxy-1,2-ethanediyl), a-butyl-omega-hydroxy	log Kow 0.44@20°C

12.4 Mobility

Mobility

Soluble in water.

Mobility in soil

See component information below.

Chemical Name	Mobility in soil
Poly(oxy-1,2-ethanediyl),	Not expected to adsorb on soil

a-butyl-omega-hydroxy	
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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 to an approved waste handling site for recycling or 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: 7042 - Organic solvents, non-halogenated.

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

The product has been assessed and contained in Chapters 17/18 of the IBC Code and the latest MEPC.2/Circular and is permitted to be carried under Annex II of MARPOL and resolution A.673 (16) Offshore Supply Vessel Code. Ship Type:- 3. Pollution Category:- Z. Proper Shipping Name: Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether
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

Germany, Water Endangering Classes (VwVwS)	Hazardous to water/Class 1
Technical Rules for Hazardous Substances (TRGS)	TRGS 220 National aspects when compiling safety data sheets TRGS 510 Storage of hazardous substances in non stationary containers TRGS 900 Occupational exposure limits

Germany

Regulations governing systems for handling substances hazardous to waters
Hazardous substances ordinance

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
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Inventory - Japan - Existing and New Chemicals list	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korea (KECL)	Complies
Inventory - New Zealand - Inventory of Chemicals (NZIoC)	Complies

Europe - REACH

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Norway Pr. no.	45054
Denmark Pr. no.	1113008

15.2 Chemical Safety Report

No information available

16. Other Information

Prepared by Global Regulatory Compliance - Chemicals (GRC - Chemicals) , Anne Karin (Anka) Fosse
Supersedes Date: 07/Jul/2015
Revision date 15/Jun/2018
Version 9
This SDS has been revised in the following section(s) All sections Product Code change 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

Training Advice

Do not handle until all safety precautions have been read and understood

Follow general hygiene considerations recognised as common good workplace practices

HMIS classification

Health	3
Flammability	1
Physical hazard	0
PPE	J

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

H318 - Causes serious eye damage

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