

SDS no. PID510
Version 12
Revision date 16-Nov-2018
Supersedes Date: 09-Jul-2018



Safety Data Sheet DUO-VIS*

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name DUO-VIS*
Product code PID510

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

Recommended Use Viscosifier.

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 Not classified

Environmental hazards Not classified

Physical Hazards Not classified

2.2 Label elements

Signal word

None

Hazard Statements

This product is not classified as hazardous therefore no (H) hazard statements assigned.

Precautionary statements

This product is not classified as hazardous therefore has no (P) precautionary statements assigned.

Contains
Glyoxal

2.3 Other hazards

Not classified as PBT/vPvB by current EU criteria
Product dust may be irritating to eyes, skin and respiratory system
Suspended dust may present a dust explosion hazard

Australian statement of hazardous/dangerous nature

Classified as Non-Hazardous according to the criteria of NOHSC.
NON-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-%
Glyoxal	203-474-9	107-22-2	<1

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. Get medical attention if symptoms occur.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.
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.

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

None known.

5.2. Special hazards arising from the substance or mixture

Unusual fire and explosion hazards

Dust may form explosive mixture in air.

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. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Material becomes slippery when wet. Use caution if wet.

6.2 Environmental precautions

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to applicable federal, state and local regulations.

Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for containment

Cover powder spill with plastic sheet or tarp to minimize spreading. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. 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. Avoid dust formation. Persons susceptible to allergic reactions should not handle this product.

Hygiene Measures

Use good work and personal hygiene practices to avoid exposure. Do not eat, drink or smoke when using this product 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 Suspended dust may present a dust explosion hazard Avoid heat, flames and other sources of ignition. Protect from moisture Avoid contact with: Strong oxidizing agents
Storage class	Chemical storage.
Packaging materials	Use specially constructed containers only.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure limits No biological limit allocated

Component Information

Chemical Name	Arabic	Australia	Egypt
Glyoxal	Not determined	Not determined	Not determined
Chemical Name	India	Indonesian	Japan
Glyoxal	Not determined	Not determined	Not determined
Chemical Name	Kazakhstan	Kuwait	New Zealand
Glyoxal	Not determined	Not determined	Not determined
Chemical Name	Malaysia	Philippines	Russia
Glyoxal	Not determined	Not determined	Not determined
Chemical Name	Thailand	Vietnam	Turkey
Glyoxal	Not determined	Not determined	Not determined

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 Local exhaust ventilation

Personal protective equipment

Eye protection

Use eye protection according to EN 166, designed to protect against powders and dusts
Safety glasses with side-shields Tightly fitting safety goggles

Hand protection

Wear gloves according to EN 374 to protect against skin effects from powders Use protective gloves made of: Butyl Neoprene Nitrile Frequent change is advisable

Respiratory protection

No personal respiratory protective equipment normally required In case of insufficient ventilation wear suitable respiratory equipment Half mask with a particle filter P2 (European Norm EN 143 = former DIN 3181) 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	Solid
Appearance	Powder Dust
Odor	Mild
Color	Cream - Tan
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	Not applicable	
pH @ dilution	7	@ 1% sol.
Melting / freezing point	No information available	
Boiling point/range	No information available	
Flash point	No information available	
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	1.5	20 °C
Bulk density	50 lb/ft ³ (800 kg/m ³)	

Relative density	No information available
Water solubility	Soluble in water
Solubility in other solvents	No information available
Autoignition temperature	> 200 °C / > 392 °F
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
log Pow	No information available
Explosive properties	Suspended dust may present a dust explosion hazard
Oxidizing 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

Dust may form explosive mixture in 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

Take precautionary measures against static charges. Avoid dust formation. Heat, flames and sparks. Protect from moisture.

10.5 Incompatible materials

Strong 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 dust in high concentration may cause irritation of respiratory system.
Eye contact	Dust may cause mechanical irritation.
Skin contact	Prolonged contact may cause redness and irritation.

Ingestion Ingestion may cause stomach discomfort.
Unknown acute toxicity Not applicable.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glyoxal	= 200 mg/kg (Rat)	= 12700 mg/kg (Rabbit)	= 2410 mg/m ³ , 3-4 hrs

Sensitization EUH208 - Contains (Glyoxal). May produce an allergic reaction.
Mutagenic effects Contains an known or suspected mutagen.
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.
Routes of entry Inhalation.
Specific target organ toxicity - Single exposure Not classified
Specific target organ toxicity - Repeated exposure Not classified.
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
See component information below.

Toxicity to fish
See component information below.

Toxicity to daphnia and other aquatic invertebrates
See component information below.

Toxicology data for the components

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Glyoxal	= 215 mg/L LC50 Pimephales promelas 96 h 460 - 680 mg/L LC50 Leuciscus idus 96 h	<= 348.59 mg/L EC50 Pseudokirchneriella subcapitata 96 h > 500 mg/L EC50 Desmodesmus subspicatus 96 h > 500 mg/L EC50	= 404 mg/L EC50 Daphnia magna 48 h

		Desmodemus subspicatus 72 h	
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12.2 Persistence and degradability

The product contains substances which are not expected to be biodegradable. See component information below.

Chemical Name	Persistence and degradability
Glyoxal	Readily biodegradable

12.3 Bioaccumulative potential

Does not bioaccumulate. See component information below.

Chemical Name	Bioaccumulation
Glyoxal	Not likely to bioaccumulate - Bioconcentration factor (BCF) 2.155

12.4 Mobility

Mobility

Soluble in water. See component information below.

Chemical Name	Mobility
Glyoxal	Soluble in water

Mobility in soil

See component information below.

Chemical Name	Mobility in soil
Glyoxal	Not expected to adsorb on soil

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)

Australian Standard for the Uniform Scheduling of Drugs and Poisons

No poisons schedule number allocated

New Zealand Hazard Classification Not classified

HSNO approval no. Not required.

Group number Not required.

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 (TSCA)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	Complies

16. Other Information

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Version 12

This SDS has been revised in the following section(s) 2, 6, 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	0
Flammability	1
Physical hazard	0
PPE	E

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