

A Schlumberger Company

SAFETY DATA SHEET KLA-GARD*

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name KLA-GARD*

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

Identified uses

Drilling fluid additive Shale control agent.

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 MISDS@slb.com

Contact Person

1.4. Emergency telephone number

(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.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

	Physical and Chemical Hazards	Not classified.	
	Human health	Not classified.	
	Environment	Not classified.	
Classification (1999/45/EEC)	Not classified.		
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16			

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2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition Comments

The data shown is in accordance with the latest EC Directives. No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Get medical attention if any discomfort continues.

Ingestion

Immediately give a couple of glasses of water or milk, provided the victim is fully conscious. Get medical attention if any discomfort continues.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. 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 information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop as described the casualty should be transferred to hospital as soon as possible. For further information, please refer to section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Fire or high temperatures create: Vapours/gases/fumes of: Ammonia. Oxides of: Carbon. Nitrogen.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk. Dike far ahead of larger spills for later disposal. Absorb spillage with suitable absorbent material. Shovel into dry containers. Cover and move the containers. Flush the area with water.

6.4. Reference to other sections

For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Avoid inhalation of vapours and spray mists. Ammonia or amines may be released when this component is heated or exposed to high pH.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Avoid heat, flames and other sources of ignition. Avoid contact with oxidising agents. Avoid contact with acids. Bases.

Storage Class

Chemical storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments

No exposure limits noted for ingredient(s).

8.2. Exposure controls

Protective equipment



Process conditions

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

Provide adequate general and local exhaust ventilation.

Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. Chemical respirator with ammonia and amines cartridge (K/P2, green filter).

Hand protection

For prolonged or repeated skin contact use suitable protective gloves. Nitrile. or Neoprene gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact. Provide eyewash station.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash hands after handling. Promptly remove any clothing that becomes wet or contaminated.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
<u>Colour</u>	Clear to blue
<u>Odour</u>	Amine.
<u>Solubility</u>	Soluble in water.
Initial boiling point and boiling range	125°C
<u>(°C)</u>	
Relative density	1.1 g/cm3 @ 16°C (68°F)
pH-Value, Conc. Solution	6.5 - 8.5
<u>Flash point (°C)</u>	>98°C (210°F) CC (Closed cup).

9.2. Other information

Not relevant

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Ammonia or amines may be released when this component is heated or exposed to high pH.

10.5. Incompatible materials

Materials To Avoid

Avoid contact with oxidising agents. Avoid contact with acids. Bases.

10.6. Hazardous decomposition products

Fire or high temperatures create: Vapours/gases/fumes of: Ammonia. Oxides of: Carbon. and Nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)

3400 mg/kg Rat *Based on components

Aspiration hazard:

Not anticipated to present an aspiration hazard based on chemical structure.

Inhalation

Gas or vapour in high concentrations may irritate respiratory system.

Ingestion

May cause gastric distress, nausea and vomiting if ingested.

Skin contact

Prolonged and frequent contact may cause redness and irritation.

Eye contact

Spray and vapour in the eyes may cause irritation and smarting.

Route of entry

No route of entry noted.

Target Organs

No specific target organs noted

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Contact M-I SWACO's QHSE Department for ecological information at M-ISWACOenv@slb.com.

12.1. Toxicity

Acute Fish Toxicity

Not considered toxic to fish.

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

The product is 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.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements.

Waste Class

The definitive European Waste code for this product will depend upon the final use that is made of this material. EWC-code: 06 03 99.

SECTION 14: TRANSPORT INFORMATION

<u>General</u>

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable. Please contact MISDS@slb.com for info regarding transport in Bulk.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References

Chemicals (Hazard Information & Packaging) Regulations. Control of Substances Hazardous to Health Regulations 2002 (as amended) Workplace Exposure Limits EH40.

EU Legislation

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 1999/45/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.

Water hazard classification

WGK 1

New Zealand Hazard Classification and HSNO Approval No.

Not Classified. HSNO Approval No. Not Required.

Name of Group Standard and Information on Conditions of Group Standard

Not applicable.

15.2. Chemical Safety Assessment

International Chemical Inventories

Contact REACH@miswaco.slb.com for REACH information. Complies with the following national/regional chemical inventory requirements: Australia (AICS), Canada (DSL / NDSL), China (IECSC), Europe (EINECS / ELINCS), Japan (METI / ENCS), Korea (TCCL / ECL), New Zealand (NZIoC), Phillipines (PICCS), United States (TSCA).

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms used in the safety data sheet

*a mark of M-I L.L.C.

General information

HMIS Health -1 HMIS Flammability - 1 HMIS Physical Hazard - 0 J - Splash Goggles, Gloves, Synthetic Apron, Dust and Vapour Respirator.

Information Sources

Product information provided by the commercial vendor(s). Material Safety Data Sheet, Misc. manufacturers. LOLI. European Chemicals Bureau - ESIS (European Chemical Substances Information).

Revision Comments

General revision. Updated according to CLP.

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Risk Phrases In Full Not classified.	<u>Signature</u>	Sandra McWilliam	
NC Not classified.	Signature 2	Sarah Malone	
	Risk Phrases In Full		
Hazard Statements In Full	NC	Not classified.	
	Hazard Statements In Full		

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