



## Safety Data Sheet MICA (All Grades)

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

#### 1.1 Product identifier

**Product name** MICA (All Grades)  
**Product code** PID1063

**Synonyms** MICA FINE, MICA MEDIUM, MICA COARSE, MICA 15Z (C), MICA 25Z (M), MICA 40Z (F)

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

**Recommended Use** Lost circulation material.

**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

<b>Norway</b>	Poison information centre: +47 22 59 13 00
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### 2. Hazards Identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Commission Regulation (EU) No 2015/830 of 28 May 2015

**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.

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### Contains

Mica

Crystalline silica (impurity)

## 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
Mica	310-127-6	12001-26-2	60-100	Not classified	Exempt
Crystalline silica (impurity)	238-878-4	14808-60-7	<5	STOT RE. 2 (H373)	Not applicable

### 3.2 Mixtures

Not applicable

### Comments

Naturally occurring mineral.

This product contains a small quantity of quartz, crystalline silica. Prolonged and repeated exposure to concentrations of crystalline silica exceeding the workplace exposure limit (WEL) may lead to chronic lung disease such as silicosis. IARC Monographs, Vol. 68, 1997, concludes that there is sufficient evidence that inhaled crystalline silica in the form of quartz or cristobalite from occupational sources causes cancer in humans. IARC Classification Group I.

## **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.

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<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Get medical attention if irritation persists.
<b>Eye Contact</b>	Promptly wash eyes with lots of water while lifting eye lids. Remove contact lenses, if worn. 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. Firefighting Measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Use extinguishing media appropriate for surrounding material.

**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**

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

#### **Methods for cleaning up**

Sweep up and shovel into suitable containers for 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. Avoid dust formation.

#### **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 materials** Use specially constructed containers only.

### 7.3 Specific end uses

See Section 1.2.

## 8. Exposure Controls/Personal Protection

## 8.1 Control parameters

### Component Information

Chemical Name	EU OEL - Third List	Austria	Denmark
Mica	Not determined	10 mg/m <sup>3</sup> TWA inhalable fraction	Not determined
Crystalline silica (impurity)	Not determined	0.15 mg/m <sup>3</sup> TWA alveolar dust, respirable fraction	0.1mg/m <sup>3</sup>
Chemical Name	France	Germany	Hungary
Mica	Not determined	Not determined	Not determined
Crystalline silica (impurity)	0.1 mg/m <sup>3</sup> TWA	Not determined	0.15mg/m <sup>3</sup> TWA
Chemical Name	Italy	Netherlands	Norway
Mica	Not determined	Not determined	6 mg/m <sup>3</sup> TWA total dust 3 mg/m <sup>3</sup> TWA respirable dust 12 mg/m <sup>3</sup> STEL total dust 6 mg/m <sup>3</sup> STEL respirable dust
Crystalline silica (impurity)	Not determined	0.075 mg/m <sup>3</sup>	0.3 mg/m <sup>3</sup> TWA total dust 0.1 mg/m <sup>3</sup> TWA respirable dust 0.9 mg/m <sup>3</sup> STEL total dust 0.3 mg/m <sup>3</sup> STEL respirable dust Carcinogen
Chemical Name	Poland	Portugal	Romania
Mica	Not determined	3 mg/m <sup>3</sup> TWA respirable fraction	3mg/m <sup>3</sup> TWAdust, inhalable fraction
Crystalline silica (impurity)	2 mg/m <sup>3</sup> TWA NDS >50% free crystalline silica 0.3 mg/m <sup>3</sup> TWA NDS >50% free crystalline silica 4.0 mg/m <sup>3</sup> TWA NDS 2% to 50% free crystalline silica 1.0 mg/m <sup>3</sup> TWA NDS 2% to 50% free crystalline silica	0.025 mg/m <sup>3</sup> TWA respirable fraction	0.1mg/m <sup>3</sup> TWAdust, respirable fraction
Chemical Name	Spain	Switzerland	UK
Mica	3 mg/m <sup>3</sup> TWA VLA-ED	3 mg/m <sup>3</sup> TWA MAK	30 mg/m <sup>3</sup> STEL calculated total inhalable 2.4 mg/m <sup>3</sup> STEL calculated respirable 10 mg/m <sup>3</sup> TWA total inhalable 0.8 mg/m <sup>3</sup> TWA respirable
Crystalline silica (impurity)	0.05 mg/m <sup>3</sup> TWA VLA-ED	0.15 mg/m <sup>3</sup> TWA MAK	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. Mechanical ventilation or local exhaust ventilation is required. Provide appropriate exhaust ventilation at places where dust is formed.

### Personal protective equipment

#### Eye protection

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

#### Hand protection

Wear gloves according to EN 374 to protect against skin effects from powders. Repeated or prolonged contact Use protective gloves made of: PVC Butyl rubber

**Respiratory protection** Frequent change is advisable  
 In case of insufficient ventilation, wear suitable respiratory equipment, Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust), Respirator with combination filter for vapour/particulate (EN 141), Suitable mask with particle filter P3 (European Norm 143), 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** No information available  
**Odour** Odourless  
**Colour** Grey - Silver  
**Odour threshold** Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No information available	
pH @ dilution	9.0	@ 10%
Melting / freezing point	1300 °C / 2372 °F	
Boiling point/range	No information available	
Flash point	No information available	
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	2.7 - 2.8	20 °C
Bulk density	No information available	
Relative density	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	

**Dynamic viscosity** No information available  
**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  
**Particle Size (Micron)** 250 - 4750

**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**

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**

**Product information**

This product contains a small quantity of quartz, crystalline silica. Prolonged and repeated exposure to concentrations of crystalline silica exceeding the workplace exposure limit (WEL) may lead to chronic lung disease such as silicosis.

**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
Mica	No data available	No data available	No data available
Crystalline silica (impurity)	= 500 mg/kg ( Rat )	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** Crystalline silica dust is listed by IARC in Group 1 as known to cause lung cancer in humans, if inhaled.

**Reproductive toxicity** This product does not contain any known or suspected reproductive hazards.

**Routes of exposure** Inhalation.

**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.  
 Listed on PLONOR list of OSPAR

**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
Mica	No information available	No information available	No information available
Crystalline silica (impurity)	LC50 Danio rerio (zebra fish) : > 10000 mg/l 96h	EC50: > 1000 mg/l 72h	LC50 Daphnia magna (Water flea): > 10000 mg/l 24h

**12.2 Persistence and degradability**

Not Applicable - Inorganic chemical.

Chemical Name	Persistence and degradability
Crystalline silica (impurity)	Inorganic compound

**12.3 Bioaccumulative potential**

Not Applicable - Inorganic chemical.

Chemical Name	Bioaccumulation
Crystalline silica (impurity)	Product/Substance is inorganic

**12.4 Mobility**

**Mobility**

Insoluble in water.

Chemical Name	Mobility
Crystalline silica (impurity)	Insoluble in water

**Mobility in soil**

No information available.

Chemical Name	Mobility in soil
Crystalline silica (impurity)	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 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: Waste Code: 06 03 99

### **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

Commission Regulation (EU) 2015/830 of 28 May 2015 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, 2000/21/EC and 453/2010 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.

SZW list; Crystalline Silica (respirable) is listed in the SZW list of carcinogenic substances and processes

#### International inventories

USA, Toxic Substances Control Act inventory (TSCA)	Complies
Canada (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

#### Europe - REACH

All products supplied from the European Economic Area (EEA) are compliant with the REACH Regulation EC 1907/2006. For products supplied from the EEA, Schlumberger and/or its suppliers have pre-registered and is registering all of the substances that it and/or its suppliers manufactures in or imports into the EEA that are subject to Title II of the REACH Regulation. All products supplied from outside the EEA are subject to REACH only if imported into the EEA. The importer of the products must comply with REACH for each imported substance. Contact REACH@slb.com for REACH information.

For use only in North Sea countries (NSG)

### 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:	19/Jun/2018
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**Version** 9

**This SDS has been revised in the following section(s)** 1, 15, 16 For use only in North Sea countries (NSG)  
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

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

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

H373 - May cause damage to organs through prolonged or repeated exposure if inhaled

**Disclaimer**

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