

## SAFETY DATA SHEET

### BARITE

#### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME                    BARITE  
 APPLICATION                    Weighting agent.  
 SUPPLIER                        M-I Drilling Fluids UK Ltd,  
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#### 2 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
BARIUM SULPHATE	231-784-4	7727-43-7	60-100%	-
QUARTZ, CRYSTALLINE SILICA	238-878-4	14808-60-7	1-10%	Xn;R20.

The Full Text for all R-Phrases are Displayed in Section 16

CAS-NO.                            13462-86-7

#### COMPOSITION COMMENTS

The data shown is in accordance with the latest EC Directives. Barite is a naturally occurring mineral Prolonged and repeated exposure to concentrations of crystalline silica exceeding the maximum exposure limit may lead to chronic lung disease such as silicosis.

#### 3 HAZARDS IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

#### HUMAN HEALTH

This product contains a small quantity of quartz. IARC Monographs, Vol.68, 1997, concludes that there is sufficient evidence that inhaled crystalline silica in the form of quartz or crystobalite from occupational sources causes cancer in humans. IARC classification Group 1.

#### 4 FIRST-AID MEASURES

#### INHALATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

#### INGESTION

First aid is not normally required. Rinse mouth thoroughly. Drink plenty of water.

#### SKIN CONTACT

Wash skin thoroughly with soap and water. Remove contaminated clothing. Get medical attention if any discomfort continues.

#### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention if any discomfort continues.

#### 5 FIRE-FIGHTING MEASURES

#### EXTINGUISHING MEDIA

The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

#### SPECIAL FIRE FIGHTING PROCEDURES

No specific fire fighting procedure given.

#### UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

#### SPECIFIC HAZARDS

Not relevant.

#### 6 ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS

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

**BARITE****ENVIRONMENTAL PRECAUTIONS**

Do not allow to enter drains, sewers or watercourses.

**SPILL CLEAN UP METHODS**

Shovel into dry containers. Cover and move the containers. Flush the area with water.

**7 HANDLING AND STORAGE****USAGE PRECAUTIONS**

Avoid handling which leads to dust formation. Provide good ventilation. Mechanical ventilation or local exhaust ventilation may be required.  
Do not use contact lenses.

**STORAGE PRECAUTIONS**

Store at moderate temperatures in dry, well ventilated area. Keep containers tightly closed.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
QUARTZ, CRYSTALLINE SILICA	WEL		0.3 mg/m3		
BARIUM SULPHATE	WEL		4 mg/m3 resp. dust		

**INGREDIENT COMMENTS**

Quartz, crystalline silica: Workplace exposure levels have been identified for the following countries: WEL = Workplace Exposure Limits Australia. Austria. Belgium. China. Denmark. Egypt. Estonia. Finland. France. Germany. Hong Kong. Hungary. Iceland. Indonesia. Ireland. Korea. Malaysia. Netherlands. New Zealand. Norway. Philippines. Poland. Portugal. Russia. Singapore. Slovakia. Slovenia. South Africa. Spain. Sweden. Switzerland. Taiwan. and Thailand. Depending on country, the Quartz Workplace Exposure Limit varies from 0.05 mg/m3 (respirable fraction) through to 4 mg/m3 total dust. The quartz component of this product is currently being reviewed by the (UK) HSE. As a result they have issued Chemical Hazard Alert Notice 35. It states that although the present limit is set at 0.3mg/m3 (8-hour TWA) employers should aim to control exposure to 0.1mg/m3 (8-hour TWA) or below, until the new guidelines are issued.

**PROTECTIVE EQUIPMENT****ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

Respiratory protection must be used if air contamination exceeds acceptable level. Dust filter P3 (for especially fine dust/powder).

**HAND PROTECTION**

No specific hand protection noted, but gloves may still be advisable. For prolonged or repeated skin contact use suitable protective gloves.  
Rubber or plastic.

**EYE PROTECTION**

Wear dust resistant safety goggles where there is danger of eye contact.

**OTHER PROTECTION**

Wear appropriate clothing to prevent repeated or prolonged skin contact. Provide eyewash station.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Powder, dust		
COLOUR	Tan to Grey		
ODOUR	Odourless or No characteristic odour.		
SOLUBILITY	Insoluble in water		
MELTING POINT (°C)	1580	RELATIVE DENSITY	4.2 - 4.25 20°C
BULK DENSITY	1920 - 2400 kg/m3		

**10 STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions.

**CONDITIONS TO AVOID**

Avoid wet and humid conditions.

**MATERIALS TO AVOID**

No incompatible groups noted.

**HAZARDOUS DECOMPOSITION PRODUCTS**

No specific hazardous decomposition products noted.

**BARITE****11 TOXICOLOGICAL INFORMATION**

## TOXICOLOGICAL INFORMATION

Acute toxicity. LD50. Oral. Rat. > 20000 mg/kg

## INHALATION

Dust may irritate respiratory system or lungs. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

## INGESTION

May cause discomfort if swallowed.

## SKIN CONTACT

Powder may irritate skin.

## EYE CONTACT

Particles in the eyes may cause irritation and smarting.

## HEALTH WARNINGS

Prolonged and repeated exposure by inhalation to concentrations of crystalline silica exceeding the maximum exposure limit may lead to chronic lung disease such as silicosis.

**12 ECOLOGICAL INFORMATION**

## ECOTOXICITY

Not regarded as dangerous for the environment. This material is a naturally occurring mineral. OSPAR have defined this chemical as PLONOR.

**13 DISPOSAL CONSIDERATIONS**

## DISPOSAL METHODS

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

**14 TRANSPORT INFORMATION**

## GENERAL

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

**15 REGULATORY INFORMATION**

## RISK PHRASES

NC Not classified.

## SAFETY PHRASES

NC Not classified.

## UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations. The Control of Substances Hazardous to Health Regulations

## EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EEC.

## STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations.

## GUIDANCE NOTES

Workplace Exposure Limits EH40.

**16 OTHER INFORMATION**

## GENERAL INFORMATION

HMIS Health - 1 HMIS Flammability - 0 HMIS Physical Hazard - 0 E - Safety glasses, Gloves, Dust Respirator

## INFORMATION SOURCES

Material Safety Data Sheet, Misc. manufacturers. Micromedex.

## REVISION COMMENTS

Revised by Silvia Smart. The following sections have been revised: 8

## ISSUED BY

Dr. Kirsty Walker

REVISION DATE 17-01-06

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SDS NO. 10610

## RISK PHRASES IN FULL

R20 Harmful by inhalation.

**BARITE**

DISCLAIMER

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