


SECTION 1: IDENTIFICATION

Product Identifier	BARITE
Product Family	Drilling Fluid Additive
Recommended Use	Increasing density of drilling fluids
Supplier Identifier	Blackstone Drilling Fluids Ltd., Suite 700, 215 – 9th Avenue S.W., Calgary, Alberta, T2P 1K3, 403-262-5955
Emergency Phone No.	CANUTEC, 613-996-6666 or *666 on a cellular phone (Canada Only), 24 Hours / Day

SECTION 2: HAZARD IDENTIFICATION

CLASSIFICATION:	Carcinogenicity – Category 1A
STOT – RE – Category	1
LABEL SYMBOL:	
SIGNAL WORD:	DANGER
CLASSIFICATION INFORMATION:	May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated inhalation.
PRECAUTIONARY STATEMENTS:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash hands, face, and exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. In case of inadequate ventilation wear respiratory protection. IF exposed or concerned: Get medical advice. Dispose of contents and/or container in accordance with local regulations.
OTHER HAZARDS:	Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Barium sulfate	7727-43-7	90-100% (w/w)
Quartz; crystalline silica	14808-60-7	1 – 10% (w/w)

SECTION 4: FIRST AID MEASURES

SKIN CONTACT:	If irritation occurs, before breaks and when shift ends wash with soap and water. If irritation develops and persists seek medical attention.
EYE CONTACT:	Flush with gently flowing warm water until particles are removed and irritation ceases. If irritation persists, seek medical attention.
INGESTION:	No first aid required for ingestion of small quantities. If large amount is ingested

obtain medical attention.
INHALATION: Move to area free from dust. If breathing difficulties continue, obtain medical attention. Inhalation may aggravate existing respiratory illness.

MOST IMPORTANT SYMPTOMS / EFFECTS: Inhalation of dust in high concentration may cause irritation of the respiratory system. Harmful; danger of serious damage to health by prolonged exposure through inhalation. Repeated or prolonged inhalation of crystalline silica dust can cause delayed lung injury, and other diseases, including silicosis and lung cancer.

IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use media suitable for packaging and surrounding fire.
UNSUITABLE EXTINGUISHING MEDIA: None.
SPECIFIC FIRE HAZARDS: None.
HAZARDOUS COMBUSTION PRODUCTS: Silicon oxide. Sulphur oxides.
SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS: Self-contained breathing apparatus required for fire-fighting personnel.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use appropriate safety equipment. Avoid creating dust clouds. Avoid breathing dust; wear an approved respirator. Remove and thoroughly clean contaminated clothing before re-wearing.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Vacuum up, if possible, to avoid generating airborne dust. Collect uncontaminated material for repackaging. Collect contaminated material in approved containers for disposal. Do not flush with water; becomes slippery when wet.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid creating dust. Avoid breathing dust; wear an approved respirator. Practice reasonable caution and personal cleanliness. Launder contaminated clothing before reuse. Slippery when wet. Empty packages contain residual hazardous material and should be handled as if full.

CONDITIONS FOR SAFE STORAGE & INCOMPATIBILITIES

Store in cool, dry area.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

CHEMICAL NAME	EXPOSURE LIMIT: ACGIH TWA
Barium sulfate	10 mg/m ³
Quartz; crystalline silica	0.025 mg/m ³

ENGINEERING CONTROLS: Maintain adequate engineering controls and/or ventilation to keep hazardous ingredient(s) below statutory limits.

PERSONAL PROTECTIVE MEASURES

RESPIRATORY PROTECTION: NIOSH approved dust masks or respirators for silica bearing dust.
PROTECTIVE GLOVES: Personal preference.
EYE PROTECTION: Safety glasses with side shields recommended.
OTHER PROTECTIVE EQUIPMENT (SPECIFY): Ensure eyewash station and emergency shower are available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Light tan to gray powder
ODOUR:	Odourless
ODOUR THRESHOLD:	Not applicable
pH:	Not applicable
MELTING POINT / FREEZING POINT:	1580°C (literature)
BOILING POINT / RANGE:	Not applicable (decomposes)
FLASH POINT:	Not applicable (will not burn)
EVAPORATION RATE:	Not available
FLAMMABILITY:	Not flammable
FLAMMABILITY / EXPLOSIVE LIMITS:	Not applicable
VAPOUR PRESSURE:	Not available
VAPOUR DENSITY:	Not available
RELATIVE DENSITY:	4.0 – 4.4
SOLUBILITY:	Insoluble in water
PARTION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: No known dangerous reactions under normal conditions of use.
 CHEMICAL STABILITY: Stable under recommended storage conditions.
 POSSIBILITY OF HAZARDOUS REACTIONS: None known.
 CONDITIONS TO AVOID: None known.
 INCOMPATIBLE MATERIALS: Not available.
 HAZARDOUS DECOMPOSITION PRODUCTS: Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY: Not available.

COMPONENT	COMPONENT TOXICITY		LC50 INHALATION
	LD50 ORAL	LD50 DERMAL	
Barium sulfate	Not available 500 mg/kg (rat)	Not available	Not available
Quartz; crystalline silica	(unconfirmed)	Not available	Not available

SKIN CONTACT: Repeated exposure may cause drying resulting in dermatitis.

EYE CONTACT: May cause mechanical irritation.

INGESTION: Low oral toxicity. No effects expected.

INHALATION: May cause irritation of the upper respiratory tract. This product contains crystalline silica. Breathing silica containing dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Chronic inhalation may cause silicosis, a progressive, disabling and sometimes fatal lung disease. Chronic inhalation exposure to crystalline silica quartz has been observed to cause lymph node effects, kidney effects and auto-immune disease.

CARCINOGENICITY: Barite is not listed by ACGIH, IARC, NTP or OSHA. Crystalline silica, when inhaled from occupational sources, is considered as a human carcinogen by IARC (Class 1) and by NTP. ACGIH classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

TERATOGENICITY: No information available.

REPRODUCTIVE TOXICITY: No information available.

MUTAGENICITY: Crystalline silica has been shown to cause mutagenic effects in human cells in-vitro.

CHRONIC TOXICITY: Prolonged inhalation of respirable crystalline silica may cause lung disease, silicosis, lung cancer and other effects.

TARGET ORGAN EFFECTS: Respiratory system (lungs).

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	No data available.
PERSISTENCE AND DEGRADABILITY:	Not applicable to inorganic substances.
BIOACCUMULATIVE POTENTIAL:	No data available.
MOBILITY IN SOIL:	No data available.
OTHER ADVERSE EFFECTS:	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. May be disposed of as an inert solid in a sanitary landfill in some locations: Check with local operator. Empty packages should be taken for local recycling, recover or waste disposal: Check with local waste operator.

SECTION 14: TRANSPORTATION INFORMATION

UN NUMBER:	Not applicable
PROPER SHIPPING NAME:	None
CLASS:	Not applicable
PACKING GROUP:	Not applicable
IMDG HAZARDS:	Not applicable
BULK TRANSPORT:	Not applicable
SPECIAL PRECAUTIONS:	Not applicable

SECTION 15: REGULATORY INFORMATION

DSL:	All ingredients are on the DSL.
WHMIS CLASS:	D2A
TSCA:	All components are listed on the inventory or are exempt.

SECTION 16: OTHER INFORMATION

SDS Prepared By	Product Safety Committee
Phone No.	403-262-5955
Date of Preparation	Feb 11, 2019
Disclaimer	To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein