

# MATERIAL SAFETY DATA SHEET

## BARITE

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**TRADE NAME:** BARITE

**OTHER NAME:** Barium sulfate

**APPLICATIONS:** Drilling Fluid densifier

**EMERGENCY TELEPHONE:** 800-438-7436 (800 GETS GEO)

**SUPPLIER:** Supplied by Industrial Minerals Company  
A Business Unit of GEO Drilling Fluids, Inc.  
1431 Union Ave. Bakersfield, California, 93305

**TELEPHONE:** 661-325-5919

**FAX:** 661-325-5648

**CONTACT PERSON:** Andy Philips – Safety Officer

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### 2. COMPOSITION, INFORMATION ON INGREDIENTS

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INGREDIENT NAME:	CAS No.:	CONTENTS :	EPA RQ:	TPQ:
Silica, crystalline, quartz	14808-60-7	4-6 %		
Barite	7727-43-7	91-93 %		
Mica	12001-26-2	1-5 %		

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### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW:

CAUTION! MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.  
Avoid contact with eyes, skin and clothing. Avoid breathing airborne product. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.  
This product is a/an transparent tan to powder. Slippery when wet. A nuisance dust.

#### ACUTE EFFECTS:

#### HEALTH HAZARDS, GENERAL:

Particulates may cause mechanical irritation to the eyes, nose, throat and lungs.  
Particulate inhalation may lead to pulmonary fibrosis, chronic bronchitis, emphysema and bronchial asthma. Dermatitis and asthma may result from short contact periods.

**INHALATION:** May be irritating to the respiratory tract if inhaled.

**INGESTION:** May cause gastric distress, nausea and vomiting if ingested.

**SKIN:** May be irritating to the skin.

**EYES:** May be irritating to the eyes.

**CHRONIC EFFECTS:****CARCINOGENICITY:**

IARC: Not listed. OSHA: Not regulated. NTP: Not listed.

ATTENTION! CANCER HAZARD. CONTAINS CRYSTALLINE SILICA WHICH CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure.

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 1.

**ROUTE OF ENTRY:**

Inhalation. Skin and/or eye contact.

**TARGET ORGANS:**

Respiratory system, lungs. Skin. Eyes.

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**4. FIRST AID MEASURES**

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**GENERAL:** Persons seeking medical attention should carry a copy of this MSDS with them.

**INHALATION:** Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Get medical attention.

**INGESTION:** Drink a couple of glasses water or milk. Do not give victim anything to drink of he is unconscious. Get medical attention.

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

**EYES:** Promptly wash eyes with lots of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues

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**5. FIRE FIGHTING MEASURES**

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**AUTO IGNITION TEMP. (?F):** N/D

**FLAMMABILITY LIMIT - LOWER(%):** N/D

**FLAMMABILITY LIMIT - UPPER(%):** N/D

**EXTINGUISHING MEDIA:**

This material is not combustible. Use extinguishing media appropriate for surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:**

No specific fire fighting procedure given.

**UNUSUAL FIRE & EXPLOSION HAZARDS:**

No unusual fire or explosion hazards noted.

**HAZARDOUS COMBUSTION PRODUCTS:** This material is not combustible.

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**6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:**

Wear proper personal protective equipment (see MSDS Section 8).

**SPILL CLEAN-UP PROCEDURES:**

Avoid generating and spreading of dust. Shovel into dry containers. Cover and move the containers. Flush the area with water. Do not contaminate drainage or waterways. Repackage or recycle if possible.

**7. HANDLING AND STORAGE**

**HANDLING PRECAUTIONS:**

Avoid handling causing generation of dust. Wear full protective clothing for prolonged exposure and/or high concentrations. Eye wash and emergency shower must be available at the work place. Wash hands often and change clothing when needed. Provide good ventilation. Mechanical ventilation or local exhaust ventilation is required.

**STORAGE PRECAUTIONS:**

Store at moderate temperatures in dry, well ventilated area. Keep in original container.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

INGREDIENT NAME:	CAS No.:	OSHA PEL:		ACGIH TLV:		OTHER:		UNITS:
		TWA:	STEL:	TWA:	STEL:	TWA:	STEL:	
Silica, crystalline, quartz	14808-60-7	*		0.1				mg/m <sup>3</sup> resp.dust
Barite	7727-43-7	15		10				mg/m <sup>3</sup> total dust
Mica	12001-26-2	20 mppcf *		3				mg/m <sup>3</sup> total dust

**INGREDIENT COMMENTS:**

\* OSHA PELs for Mineral Dusts containing crystalline silica are 10 mg/m<sup>3</sup> / (%SiO<sub>2</sub>+2) for quartz and 1/2 the calculated quartz value for cristobalite and tridymite. \* mppcf = millions of particles per cubic foot of air.

**PROTECTIVE EQUIPMENT:**

**ENGINEERING CONTROLS:**

Use appropriate engineering controls such as, exhaust ventilation and process enclosure, to reduce air contamination and keep worker exposure below the applicable limits.

**VENTILATION:**

Supply natural or mechanical ventilation adequate to exhaust airborne product and keep exposures below the applicable limits.

**RESPIRATORS:**

Use at least a NIOSH-approved N95 half-mask disposable or reusable particulate respirator. In work environments containing oil mist/aerosol use at least a NIOSH-approved P95 half-mask disposable or reusable particulate respirator. For exposures exceeding 10 x PEL use a NIOSH-approved N100 Particulate Respirator.

**PROTECTIVE GLOVES:**

Use suitable protective gloves if risk of skin contact.

**EYE PROTECTION:**

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

**PROTECTIVE CLOTHING:**

Wear appropriate clothing to prevent repeated or prolonged skin contact.

**HYGIENIC WORK PRACTICES:**

Wash promptly with soap and water if skin becomes contaminated. Change work clothing daily if there is any possibility of contamination.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>APPEARANCE/PHYSICAL STATE:</b>	Powder, dust.
<b>COLOR:</b>	Tan to Grey.
<b>ODOR:</b>	Odorless or no characteristic odor.
<b>SOLUBILITY DESCRIPTION:</b>	Insoluble in water.
<b>MELT/FREEZ. POINT (?F, interval):</b>	2876
<b>DENSITY/SPECIFIC GRAVITY (g/ml):</b>	4.20 - 4.25
<b>BULK DENSITY:</b>	107 - 135 lb/cu ft; 1714 - 2163 kg/m <sup>3</sup>
<b>VAPOR DENSITY (air=1):</b>	N/A
<b>VAPOR PRESSURE:</b>	N/A

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**10. STABILITY AND REACTIVITY**

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**STABILITY:**

Normally stable.

**CONDITIONS TO AVOID:**

N/A.

**HAZARDOUS POLYMERIZATION:**

Will not polymerize.

**POLYMERIZATION DESCRIPTION:**

Not relevant.

**MATERIALS TO AVOID:**

N/A

**HAZARDOUS DECOMPOSITION PRODUCTS:**

No specific hazardous decomposition products noted.

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**11. TOXICOLOGICAL INFORMATION**

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**TOXICOLOGICAL INFORMATION:**

No toxicological data is available for this product.

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**12. ECOLOGICAL INFORMATION**

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**ACUTE AQUATIC TOXICITY:**

This product passes the mysid shrimp toxicity test required by the U.S. Environmental Protection Agency (EPA) Region VI (Gulf of Mexico) NPDES Permit, which regulates offshore discharge of drilling fluids, when tested in a standard drilling fluid.

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**13. DISPOSAL CONSIDERATIONS**

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**WASTE MANAGEMENT:**

This product does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc, may render the resulting materials hazardous.

**DISPOSAL METHODS:**

Recover and reclaim or recycle, if practical. Should this product become a waste, dispose of in a permitted industrial landfill. Ensure that containers are empty by RCRA criteria prior to disposal in a permitted industrial landfill.

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**14. TRANSPORT INFORMATION**

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**PRODUCT RQ:** N/A  
**U.S. DOT:**  
**U.S. DOT CLASS:** Not regulated.

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**15. REGULATORY INFORMATION**

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**REGULATORY STATUS OF INGREDIENTS:**

<b>NAME:</b>	<b>CAS No:</b>	<b>TSCA:</b>	<b>CERCLA:</b>	<b>SARA 302:</b>	<b>SARA 313:</b>	<b>DSL(CAN):</b>
Silica, crystalline, quartz	14808-60-7	Yes	No	No	No	Yes
Barite	7727-43-7	Yes	No	No	No	Yes
Mica	12001-26-2	Yes	No	No	No	Yes

**REPAIRED BY:** Andy Philips  
**REVISION No.:** July 10, 2006

**MSDS STATUS:**           Approved.  
**DATE:**                   July 10, 2006  
**DISCLAIMER:**

MSDS furnished independent of product sale. While every effort has been made to accurately describe this product, some of the data are obtained from sources beyond our direct supervision. We cannot make any assertions as to its reliability or completeness; therefore, user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. Additional information will be furnished upon request to assist the user; however, no warranty, either expressed or implied, nor liability of any nature with respect to this product or to the data herein is made or incurred hereunder.