

**BENTONITE****SECTION 1. IDENTIFICATION**

<b>Product Identifier</b>	BENTONITE
<b>Other Means of Identification</b>	Natural Mineral, Montmorillonite
<b>Product Family</b>	Viscosifier
<b>Recommended Use</b>	Drilling Fluid Additive.
<b>Supplier Identifier</b>	Bri-Chem Supply Corp, 9351 Grant Street, Ste 380, Thornton, CO, 80229, 720-236-1012, www.brichemsupplycorp.com
<b>Emergency Phone No.</b>	ChemTrec, (800) 424-9300, 24/7

**SECTION 2. HAZARD IDENTIFICATION****Classification**

Carcinogenicity - Category 1A; Specific target organ toxicity (repeated exposure) - Category 1

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	%	Other Identifiers	Other Names
BENTONITE	1302-78-9	60-100		
Silica, quartz	14808-60-7	1-5		
Silica, cristobalite	14464-46-1	0.1-1		

**SECTION 4. FIRST-AID MEASURES****First-aid Measures****Inhalation**

Move to fresh air. If breathing has stopped, trained personnel should begin rescue breathing. If breathing is difficult, have qualified personnel administer oxygen. Get prompt medical attention.

**Skin Contact**

No first aid should be needed since this product does not affect the skin. Wash exposed skin with soap and water before breaks and at the end of the work day.

**Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. If eye irritation persists, get medical advice or attention.

## Most Important Symptoms and Effects, Acute and Delayed

If in eyes:

May cause mild irritation. Symptoms include sore, red eyes, and tearing.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Not combustible. Use extinguishing agents compatible with product and suitable for surrounding fire.

### Special Protective Equipment and Precautions for Fire-fighters

Material is slippery when wet.

A full-body encapsulating chemical protective suit with positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Evacuate the area immediately.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Only use where there is adequate ventilation. Avoid generating dusts. Avoid repeated or prolonged skin contact with product or with contaminated equipment/surfaces. Material is slippery when wet.

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

### Conditions for Safe Storage

Store in a cool, dry, well ventilated place. Storage place may become slippery if wetted.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(silica, quartz)

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. 0.025 mg/m<sup>3</sup> (respirable fraction)

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.

Respirable quartz = 10 mg/m<sup>3</sup> divided by the value of "%SiO<sub>2</sub> + 2"

Total quartz = 30 mg/m<sup>3</sup> divided by the value of "%SiO<sub>2</sub> + 2"

(nuisance dust)

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. 15 mg/m<sup>3</sup> (total dust); 5 mg/m<sup>3</sup> (respirable dust).

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Protective gloves are recommended. Protective clothing or equipment as appropriate for work environment. Dusty clothing should be laundered before re-use.

#### Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	Tan - grey powder. Particle Size: Not available
<b>Odour</b>	Odourless
<b>pH</b>	8 - 10 (5% solution)
<b>Melting Point/Freezing Point</b>	Not available (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	Not available
<b>Flash Point</b>	Not available
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Relative Density (water = 1)</b>	2.45 - 2.55
<b>Solubility</b>	Insoluble in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic)
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Bulk Density</b>	50 - 73 lb/ft <sup>3</sup> (801 - 1169 kg/m <sup>3</sup> )

## SECTION 10. STABILITY AND REACTIVITY

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### Conditions to Avoid

Water, moisture, humidity.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Skin Corrosion/Irritation

Possible drying resulting in dermatitis.

No adverse effects expected.

### Serious Eye Damage/Irritation

May cause mild irritation. Symptoms include sore, red eyes, and tearing.

Contact may cause mechanical irritation and possible injury. Individuals subject to eye irritation should not be exposed to crystalline silica dust.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Short term exposure to dust levels exceeding PEL may cause irritation of the respiratory tract resulting in a dry cough.

OSHA PEL: Nuisance Dust (respirable fraction) = 5 mg/m<sup>3</sup>; (total dust) = 15 mg/m<sup>3</sup>.

Individuals with respiratory disease, including but not limited to asthma and bronchitis should not be exposed to crystalline silica dust.

#### Ingestion

No adverse effects expected for normal, incidental ingestion.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

This product has the potential for generation of respirable dust during handling and use. Dust may contain respirable

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crystalline silica. Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue.

Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

Cancer Status: The International Agency for Research on Cancer has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1 - carcinogenic to humans).

#### **Carcinogenicity**

(silica quartz): IARC: Group 1 – Carcinogenic to humans. ACGIH®: A2 – Suspected human carcinogen. NTP: Known human carcinogen.

## **SECTION 12. ECOLOGICAL INFORMATION**

No ecotoxicity or environmental fate data available.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal Methods**

Dispose of in accordance with federal, provincial/state and local regulations. Caution: slippery when wet.

## **SECTION 14. TRANSPORT INFORMATION**

Not regulated under US DOT Regulations.

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## **SECTION 15. REGULATORY INFORMATION**

#### **Safety, Health and Environmental Regulations**

##### **USA**

##### **Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

##### **Additional USA Regulatory Lists**

SARA 311/312: Hazard Categories for SARA 311/312 Reporting: Chronic Health

SARA 313: This product contains the following chemicals subject to annual release reporting requirements under

SARA section 313 (40 CFR 372): None

CERLA Section 13 Reportable Quantity: None

California Proposition 65: This product contains the following substances known to the state of California to cause cancer and/or reproductive harm: crystalline silica (respirable).

## **SECTION 16. OTHER INFORMATION**

**NFPA Rating** Health - 1 Flammability - 0 Instability - 0

**SDS Prepared By** Bri-Chem Supply Ltd

**Date of Preparation** August 05, 2015

**Disclaimer** This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as

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guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

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