

GRADE - Bentonite Construction Grade

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Trade Name:** Montmorillonite, BENTONITE, Sodium Activated Clay

**Chemical Family:** Mixture

**Product Use:** OIL DRILLING IND., CONSTRUCTION, CERAMICS

**Revision Number:** 1

**HMIS Rating**

**HMIS Key:** 4=Severe, 3=Serious, 2=Moderate, 1=Slight, 0=Minimal Hazard.

Section 8 for Personal Protective Equipment recommendations.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS NO:	Wt. % I	Ingredient Comments:
Bentonite	1302-78-9	80 - 95	No comments.

### 3. HAZARDS IDENTIFICATION

**Emergency Overview:** Caution! May cause eye, skin, and respiratory tract irritation. Long term inhalation of particulates may cause lung damage. Cancer hazard. Contains crystalline silica which may cause lung cancer.

**Canadian Regulations:**

**Potential Health Effects:**

#### **Acute Effects**

**Eye Contact:** May cause mechanical irritation

**Skin Contact:** May cause mechanical irritation. Long term contact can cause skin dryness.

**Inhalation:** May cause mechanical irritation.

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

### 4. FIRST AID MEASURES

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

**Skin Contact:** Wash skin thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if any discomfort continues.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Dilute with 2 - 3 glasses of water or milk, if conscious. Never give anything by mouth to an unconscious person. If signs of irritation or toxicity occur seek medical attention.

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

## **5. FIRE FIGHTING MEASURES**

### **Flammable Properties**

**Flash Point: F (C):** Not applicable

**Flammable Limits in Air - Lower (%):** Not applicable

**Flammable Limits in Air - Upper (%):** Not applicable

**Autoignition Temperature: F(C)** Not applicable

**Flammability Class:** Not applicable

**Other Flammable Properties:** Not determined.

**Extinguishing Media:** This material is not combustible. Use extinguishing media appropriate for surrounding fire.

### **Protection Of Fire-Fighters:**

**Special Fire-Fighting Procedures:** Do not enter fire area without proper personal protective equipment, including NIOSH/MSHA approved self-contained breathing apparatus. Evacuate area and fight fire from a safe distance. Water spray may be used to keep fire-exposed containers cool. Keep water runoff out of sewers and waterways.

**Hazardous Combustion Products:** Not determined.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protective equipment identified in Section 8.

**Spill Procedures:** Evacuate surrounding area, if necessary. Wet product may create a slipping hazard. Contain spilled material. Avoid the generation of dust. Sweep, vacuum, or shovel and place into closable container for disposal.

**Environmental Precautions:** Do not allow to enter sewer or surface and subsurface waters. Waste must be disposed of in accordance with federal, state and local laws.

## 7. HANDLING AND STORAGE

**Handling:** Put on appropriate personal protective equipment. Avoid contact with skin and eyes. Avoid generating or breathing dust. Product is slippery if wet. Use only in a well ventilated area. Wash thoroughly after handling.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Engineering Controls:** Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits listed in section 2.

**Respiratory Protection:** Wear a NIOSH certified, European standard EN 149, or equivalent respirator when using this product.

**Hand Protection:** Normal work gloves.

**Eye Protection:** Wear safety glasses or goggles to protect against exposure.

**Other Precautions:** None known

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Color:** Light Yellowish, Creamish, Tan

**Odor:** Odorless

**Physical State:** Powder

**pH:** Not determined.

**Vapor Pressure:** Not applicable

**Vapor Density (Air=1):** Not applicable

**Boiling Point:** Not determined

**Melting/Freezing Point:** Not determined

**Solubility (Water):** Insoluble

**Specific Gravity (H<sub>2</sub>O = 1):** Not determined

## **10. STABILITY AND REACTIVITY**

**Chemical Stability:** Stable

**Conditions to Avoid:** Not determined.

**Materials to Avoid:** Not Determined.

**Hazardous Decomposition**

**Products:**

None known

**Hazardous Polymerization:** Will not occur

INDIA | UAE | USA

## 11. TOXICOLOGICAL INFORMATION

**Principle Route of Exposure:** Eye or skin contact, inhalation

**Inhalation:** Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1)

**Skin Contact:** May cause mechanical skin irritation.

**Eye Contact:** May cause eye irritation.

**Ingestion:** Non known.

**Aggravated Medical Condition:** individuals with respiratory disease including but not limited to asthma and bronchitis, or subject to eye irritation, should not be exposed to quartz dust.

**Chronic Effects/Carcinogenicity:**

**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 with silicosis are predisposed to develop tuberculosis cancer

**Status:** The international agency for research on cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 carcinogenic to humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A- possible carcinogen to humans). Refer to IARC Monograph 68, silica, some silicates and organic fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology program classifies respirable crystalline silica as "Known to be a human carcinogen" refer to the 9<sup>th</sup> report on carcinogens (2000). The American conference of Governmental industries hygienists (ACGIH) classifies crystalline silica, quartz, as suspected human carcinogen (A2).

**Other information:** For further information consults "Adverse Effects of crystalline silica exposure" published by the American Thoracic Society Medical Section of the American Lung Association, American Journal of Respiratory and Critical Care Medicine, Volume 155, pages 761-768(1997).

**MATERIAL SAFETY DATA SHEET**

**ONYBENT**

**Toxicity Tests:**

**Oral Toxicity:** Not determined

**Dermal Toxicity:** Not determined

**Inhalation Toxicity:** Not determined

**Primary Irritation Effect:** Not determined

**12. ECOLOGICAL INFORMATION**

**Mobility (Water/Soil/Air):** Not determined

**Persistence/Degradability:** Not determined

**Bio-accumulation:** Not determined

**Ecotoxicological Information:**

**Acute Fish Toxicity:** TLM96: 10000 ppm ( *Oncorhynchus mykiss* )

**Acute Crustaceans Toxicity:** Not determined

**Acute Algae Toxicity:** Not determined

**Chemical Fate Information:** Not determined

**Other Information:** Not determined

INDIA | UAE | USA

### 13. DISPOSAL CONSIDERATION

**Disposal Method:** Bury in licensed landfill according to federal, state and local regulations.

**Contaminated Packaging:** Follow all applicable national or local regulations.

### 14. REGULATORY INFORMATION

#### US Regulations

**US TSCA Inventory** All components listed on inventory

**EPA SARA Title III extremely** Not applicable

**EPA SARA (311,312) HAZARD** Acute Health Hazard

**Class** Chronic Health Hazard

**EPA SARA (313) CHEMICALS)** This product does not contain a toxic chemical for routine.

#### EPA CERCLA/SUPERFUND

#### REPORTED SPILL QUANTITY

**FOR THIS PRODUCT** Not applicable

#### EPA RCRA HAZARDOUS

#### WAST CLASSIFICATION:

If product becomes a waste, it does not meet the criteria of a hazardous waste as defined by the US EPA.

**15. REGULATORY INFORMATION**

**US Regulations**

<b>US TSCA Inventory:</b>	All components listed on inventory
<b>EPA SARA Title III Extremely</b>	Not applicable
<b>EPA SARA (311,321) Hazard</b>	Acute Health Hazard
<b>Class</b>	Chronic Health Hazard
<b>EPA SAR (313) Chemicals</b>	this product does not contain a toxic chemical for routine annual "Toxic  Chemical Release Reporting" Under Section 313 (40 CFR 372)

**EPA CERCLA/Superfund**

**Reportable Spill Quantity For**

**This Product** Not applicable

**EPA RCRA Hazardous Waste**

**Classification**

If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

**California Proposition 65** The California Proposition 65 regulation apply to this product.

**MA Right-to-Know Law** One or more components listed.

**NJ Right-to-Know Law** One or more components listed.

**PA Right-to-Know Law** One or more components listed.

## 16. OTHER INFORMATION

**The following sections have been revised since the last issue of this MSDS:** Not applicable

**Additional Information:** For additional information on the use of this product contact your local Halliburton representative. For questions about the Material Safety Data Sheet for this or other Halliburton products, contact chemical compliance.

**Disclaimer Statement:** This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions or this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user