



## SAFETY DATA SHEET

**Creation Date:** February 15, 2016

### 1. Identification

**Product Name:** Bentonite

**Catalog Code:** MMII

**Synonyms:** Montmorillonite; Southern Bentonite

**Recommended Use:** Laboratory Chemicals

**Uses advised against:** No information available

**Details of the supplier of the safety data sheet**

**Company**

Muldoon Minerals, Inc.  
4023 Davis Road  
Muldoon, Texas 78949

**Telephone Numbers**

Normal: 979-242-4044  
Emergency: 979-242-4044

### 2. Hazard(s) Identification

**Classification**

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/irritation	Category 2
Serious Eye Damage / Eye Irritation	Category 2
Specific target organ toxicity (Single exposure)	Category 3
Target Organs – Respiratory System	

## Bentonite

---

### Label Elements

#### Signal Word

Warning

#### Hazard Statements

Causes eye irritation

Causes skin irritation

May cause respiratory irritation



#### Precautionary Statements

##### Prevention

Wash face, hands and any exposed skin thoroughly after handling

Wear eye/face protection

Wear protective gloves

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

##### Response

Call a POISON CENTER or doctor/physician if you feel unwell

##### Inhalation

If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

##### Skin

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

If skin irritation occurs: Get medical advice/attention

##### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention



## Bentonite

---

### Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

### Disposal

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

None identified

### Other hazards

May be harmful if swallowed ... hygroscopic.

## 3. Composition / Information on Ingredients

Component	CAS-No	Weight %
Bentonite	1302-78-9	>95

## 4. First-Aid Measures

### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

### Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

### Ingestion

Do not induce vomiting. Obtain medical attention.

### Most important symptoms/effects

No information available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea: Exposure through inhalation may result in delayed pulmonary edema, which may be fatal: Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions and shock: Symptoms may be delayed.

**Bentonite****Notes to Physician**

Treat Symptomatically

**5. Fire-Fighting Measures**

**Suitable Extinguishing Media** Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

**Unsuitable Extinguishing Media** No information available

**Flash Point Method** No information available

**Auto Ignition Temperature** No information available.

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to mechanical impact** No information available

**Sensitivity to static discharge** No information available

**Specific Hazards Arising From the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Thermal decomposition can lead to release of irritating gases and vapors

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA****Health**

2

**Flammability**

1

**Instability**

0

**Physical Hazards**

N/A

**Bentonite****6. Accidental Release Measures**

<b>Personal Precautions</b>	Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Should not be released into the environment. See Section 12 for additional ecological information.
<b>Methods for Containment and Clean Up</b>	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Provide adequate ventilation.

**7. Handling and Storage**

<b>Handling</b>	Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation. Handle under inert gas, protect from moisture.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere.

**8. Exposure Controls / Personal Protection****Exposure Guidelines**

<b>Component</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH IDLH</b>
Bentonite	TWA: 1 mg/m <sup>3</sup>		

<b>Component</b>	<b>Quebec</b>	<b>Mexico OEL (TWA)</b>	<b>Ontario TWAEV</b>
Bentonite			TWA: 1 mg/m <sup>3</sup>

**Legend****ACGIH** – American Conference of Governmental Industrial Hygienists

<b>Engineering Measures</b>	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
-----------------------------	---

**Bentonite****Personal Protective Equipment**

<b>Eye/Face Protection</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
<b>Skin and Body Protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and Chemical Properties**

<b>Physical State</b>	Powder Solid
<b>Appearance</b>	Beige
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>PH</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/ Range</b>	No information available
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (Solid, gas)</b>	No information available
<b>Flammability or Explosive limits</b>	No information available
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>Relative Density</b>	No information available
<b>Solubility</b>	Insoluble in water
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Auto ignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	No information available

**Bentonite****10. Stability and Reactivity**

<b>Reactive Hazard</b>	None Known, based on information available
<b>Stability</b>	Stable under recommended storage conditions. Hygroscopic. Moisture sensitive.
<b>Conditions to Avoid</b>	Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.
<b>Incompatible Materials</b>	Strong oxidizing agents. Strong acids.
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

**11. Toxicological Information****Acute Toxicity****Component Information**

Component	LD50 Oral	LD50 Dermal	LD50 Inhalation
Bentonite	5000 mg/kg (Rat)	Not Listed	Not Listed

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Irritation</b>	Irritating to eyes, respiratory system and skin
<b>Sensitization</b>	No information available
<b>Carcinogenicity</b>	Possible cancer hazard. May cause cancer based on animal data. The table below indicates whether each agency has listed any ingredient as a carcinogen.

**Bentonite**

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Bentonite	1302-78-9	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

**Mutagenic Effects** No information available

**Reproductive Effects** No information available

**Developmental Effects** No information available

**Teratogenicity** No information available

**STOT – Single Exposure** Respiratory system

**STOT – Repeated Exposure** None known

**Aspiration Hazard** No information available

**Symptoms / Effects Both Acute and Delayed** Ingestion may cause gastrointestinal irritation, nausea, vomiting diarrhea. Exposure through inhalation may result in delayed pulmonary edema, which may be fatal: Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock: Symptoms may be delayed

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated. May be harmful if swallowed. May cause chemical conjunctivitis. When inhaled as a dust or fume, may cause benign pneumoconiosis. Chronic inhalation may cause lung changes, chest pain, breath shortness and bronchitis.

## 12. Ecological Information

### Eco toxicity

Do not empty into drains. Do not flush into surface water or sanitary sewer system.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Bentonite	Not Listed	8.0 - 19.0 g/L LC50 96 h 19000 mg/L LC50 96 h	Not Listed	Not Listed



**Bentonite**

**Persistence and Degradability** No information available

**Bioaccumulation / Accumulation** No information available

**Mobility** No information available

**13. Disposal Considerations**

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**14. Transport Information**

**DOT** Not regulated  
**TDG** Not regulated  
**IATA** Not regulated  
**IMDG/IMO** Not regulated

**15. Regulatory Information****International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Bentonite	X	X	-	215-108-5	-		X	-	X	X	X

**Legend:**

**X – Listed**

**E – Indicates a substance that is the subject of a Section 5 (e) Constant order under TSCA**

**F – Indicates a substance that is the subject of a Section 5 (f) Rule under TSCA**

**N – Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.**

**P – Indicates a commenced PMN substance**

**R – Indicates a substance that is the subject of a Section 6 risk management rule under TSCA**

**S – Indicates a substance that is identified in a proposed or final Significant New Use Rule**

**T – Indicates a substance that is the subject of a Section 4 test rule under TSCA**

**XU – Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710 (B))**

**Bentonite**

---

**Y1 – Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.**

**Y2 – Indicates an exempt polymer that is polyester and is made only from reactants included in specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.**

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313** Not applicable

**SARA 311/312 Hazardous Categorization**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act** Not applicable

**Clean Air Act** Not applicable

**OSHA** Occupational Safety and Health Administration Not applicable

**CERCLA** Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**State Right-to-Know** Not Applicable

**U.S. Department of Transportation**

Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

**U.S. Department Of Homeland Security**

This product does not contain any DHS chemicals

## Bentonite

---

### Other International Regulations

#### Mexico – Grade

No information available

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

#### WHMIS Hazard Class

D2B Toxic materials



## 16. Other Information

#### Reference:

None

#### Other Special Considerations:

None

#### Created:

February 15, 2016

#### Last Update:

February 15, 2016

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.

**END OF BENTONITE SAFETY DATA SHEET**