SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bentonite

Product Identities: Sodium bentonite, bentonite clay, Prime Gel, Pond Seal, High Yield, SlikGel, Swell Plug, PS-8, montmorillonite

Supplier/Manufacture:
Diversified Minerals Inc.
1135 E. Wooley Road
Oxnard CA, 93030
(888) 364-9595

Recommended Uses: It is mostly used in drilling mud in the oil and gas well drilling industries. The property of swelling also makes sodium bentonite useful as a sealant, especially targeted for the sealing of subsurface disposal systems for spent nuclear fuel and for quarantining metal pollutants of groundwater. Similar uses include making slurry walls, waterproofing of below grade walls and forming other impermeable barriers (e.g. to plug old wells or as a liner in the base of landfills to prevent migration of leachate into the soil. Sodium bentonite is also used in a variety of pet care items such as cat litter to absorb odors.

Restrictions on Use: N/A

SECTION 2: HAZARD IDENTIFICATION

GHS Classification: (Please see GHS Classifications on our website under Resources)
- Carcinogenicity - Category 1A
- Specific Target Organ Toxicity Repeat Exposure - Category 2

GHS LABEL ELEMENTS Symbol(s)
Bentonite is absorbent aluminum phyllosilicate clay, consisting mostly of montmorillonite. Trace amount of elements may be detected due to the naturally variable chemical compositions of earth materials.

**SECTION 4: FIRST-AID MEASURES**

**Eye Contact:** Rinse eyes thoroughly with water for at least 15 minutes, including under lids to remove all particles. Seek medical attention for discomfort or if irritation or other symptoms do not subside.

**Skin Contact:** Wash with cool water and pH neutral soap or a mild skin detergent Seek medical attention for rash, irritation and dermatitis.

**Inhalation:** Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

**Ingestion:** Treat symptomatically. If bowel obstruction is suspected, seek immediate medical attention.

**SECTION 5: FIRE-FIGHTING MEASURES**

**Flashpoint & Method:** Non-combustible

**General Hazard:** Avoid breathing dust.

**Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Firefighting Equipment:** Bentonite poses no fire-related hazard.

**Combustion Products:** In excess of 1000°C compounds will break down into their constituent oxides.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**General:** Place spilled material into a container. Avoid actions that cause the bentonite to become airborne. Avoid inhalation of bentonite and direct contact with skin. Wear appropriate Personal Protective Equipment (PPE) as described in Section 8 below.

**Waste Disposal:** Dispose of bentonite according to Federal, State, Provincial and local regulations.
SECTION 7: HANDLING AND STORAGE

General: Handle with care and use appropriate control measures. Keep dry until used.

Properly ground all pneumatic conveyance systems. The potential exists for static build-up and static discharge when moving cement powders through a plastic, non-conductive, or non-grounded pneumatic conveyance system. The static discharge may result in damage to equipment and injury to workers.

Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck or other storage container or vessel that stores or contains bentonite. Bentonite can build up or adhere to the walls of a confined space. The bentonite can suddenly release, collapse, or fall unexpectedly.

Housekeeping: Avoid actions that cause bentonite to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8 below.

Storage Temperature: Unlimited.

Storage Pressure: Unlimited.

Storage Moisture: Keep dry.

Clothing: Promptly remove and launder clothing that is dusty or wet with bentonite. Thoroughly wash skin after exposure to bentonite.

SECTION 8: EXPOSURE CONTROLS/PERSOINAL PROTECTION

Engineering Controls: Use local exhaust and general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.

Personal Protective Equipment (PPE):

Respiratory Protection: Under ordinary circumstances no respiratory protection is required. Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.

Eye Protection: Wear ANSI approved glasses or safety goggles when handling dust or wet bentonite to prevent contact with eyes. Wearing contact lenses when using bentonite, under dusty conditions, is not recommended.

Skin protection: Wear gloves, boot covers and protective clothing impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves. Remove clothing and PPE that become saturated with wet bentonite and immediately wash exposed areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| Physical State: | Solid |
| Evaporation Rate: | NA |
| Appearance: | Beige |
| pH (in water): | 10 |
| Odor: | Odorless |
| Boiling Point: | NA |
| Vapor Pressure: | NA |
| Freezing Point: | None, solid |
| Vapor Density: | NA |
| Viscosity: | None, solid |
| Specific Gravity: | 2.4-2.6 |
| Solubility in water: | Negligible |
SECTION 10: STABILITY AND REACTIVITY

Stability: Stable. Keep dry until use.
Incompatibility: NA
Hazardous Polymerization: None.
Hazardous Decompositions: Will not spontaneously occur.

SECTION 11 AND 12: TOXICOLOGICAL AND ECOLOGICAL INFORMATION

For questions regarding toxicological and ecological information refer to contact information in Section 1.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of waste and containers in compliance with Federal, State, Provincial and Local regulations.

SECTION 14: TRANSPORT INFORMATION

This product is not classified as a Hazardous material under US D.O.T or Canadian TDG regulations.

SECTION 15: REGULATORY INFORMATION

OSHA/MSHA Hazard Communication:
This product is considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program.

CERCLA/Superfund:
This product is not listed as a CERCLA hazardous substance.

EPCRA SARA Title III:
This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered a "hazardous substance" a delayed health hazard.

EPRCA SARA Section 313:
This product does not contain any of the substance subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

California Proposition 65:
WARNING: This material may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm
### SECTION 16: OTHER INFORMATION

**General Abbreviations:**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;</td>
<td>Greater than</td>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health</td>
</tr>
<tr>
<td>&lt;</td>
<td>Lesser than</td>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>CAS RN</td>
<td>Chemical Abstracts Reference Number</td>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensations and Liability Act</td>
<td>pH</td>
<td>Negative log of hydrogen ion</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>CL</td>
<td>Ceiling Limit</td>
<td>R</td>
<td>Respirable Particulate</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
<td>RCRA</td>
<td>Resource Conservation and Reauthorization Act</td>
</tr>
<tr>
<td>g/cm(^3)</td>
<td>Grams per cubic centimeter</td>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>HEPA</td>
<td>High-Efficiency Particulate Air</td>
<td>SDS</td>
<td>Safety Data Sheet</td>
</tr>
<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification Systems</td>
<td>T</td>
<td>Total Particulate</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
<td>TDG</td>
<td>Transportation of Dangerous Goods</td>
</tr>
<tr>
<td>mg/m(^3)</td>
<td>Milligrams per cubic meter</td>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>MSHA</td>
<td>Mine Safety and Health Administration</td>
<td>TWA</td>
<td>Time Weighted Average (8 hour)</td>
</tr>
<tr>
<td>NA</td>
<td>Not Applicable</td>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association</td>
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</tbody>
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This SDS (Section 1-16) was revised on May 21, 2015.

An electronic version of this SDS is available at: www.dmicement.com

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