



Safety Data Sheet

Bentonite Clay

March 31, 2016

Section 1: Chemical Product and Company Identification

Product name: Bentonite
Contact Info: Bramble Berry Inc.
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Bellingham, WA 98225
info@brambleberry.com
www.brambleberry.com
1-877-627-7883

Emergency Phone Number:
Within USA & Canada: 1.800.424.9300 CCN693143
Outside USA & Canada: +1.703.527.3887 (collect calls accepted)

Section 2: Hazards Identification

Physical hazards: Not classified
Health Hazards: Not classified
Environmental hazards: Not classified
OSHA defined hazards: Not classified

Label elements

Hazard symbol: None
Signal word: None
Hazard statement: The substance does not meet the criteria for classification

Precautionary statement

Prevention: Observe good industrial hygiene practices
Response: Wash hands after handling
Storage: Store away from incompatible materials
Disposal: Dispose of waste and residues in accordance with local \ \ authority requirements
Hazard(s) not otherwise classified (HNOC): None
Supplemental information: None

Section 3: Composition/Information on Ingredients

Substances

Chemical Name	Common Name and Synonyms	CAS Number	%
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Bentonite	Smectite Bentonite Bentonite, Sodian Bentonite, Calcian Sodium-activated Bentonite Montmorillonite	1302-78-9	100
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*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret. Bentonite is a UVCB substance sub-type 4. The purity of the product is 100% w/w. Bentonite is composed mainly of smectite group minerals but the composition is varied, as expected for a UVCB substance, and other mineral constituents will be present in small and varying amounts. These minor are not relevant for classification and labeling.

Composition comments:

Occupational Exposure Limits for constituents are listed in Section. 8. Bentonite is composed mainly of smectite group minerals but the composition is varied, as expected for UVCB substance, and other mineral constituents will be present in small and varying amounts. These minor constituents are not relevant for classification and labeling. The purity of the product is 100% w/w. Impurities are not applicable for a UVCB substance. This product contains 10% total crystalline silica. The respirable crystalline silica as determined by the SWerF method is <1% w/w.

Section 4: First Aid Measures

Inhalation: Move to fresh air. If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult give oxygen. Call physician if symptoms develop or persists.

Skin contact: Get medical attention if irritation develops and persists. No specific first aid measures noted

Eye contact: Do not rub eyes. Flush eyes immediately with large amounts of water. Get medical attention if irritation develops and persists.

Ingestion: No special measure required

Most important symptoms/effects, acute and delayed

Dust in the eyes will cause irritation. Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically

General information: Ensure that medical personnel are aware of material(s) involved, and take precautions to protect themselves.

Section 5: Fire-Fighting Measures

Suitable extinguishing media: Dry chemical, CO₂, water spray or regular foam. Use any media suitable for the surrounding fires.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed

Special protective equipment and precautions for fire fighters:



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

Firefighting equipment/instructions: Use water spray to cool unopened containers

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials

General fire hazards: No unusual fire or explosion hazards noted.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Material can be slippery when wet. Wear protective equipment and clothing during clean up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. For personal protection, see section 8 of the SDS. Material can be slippery when wet

Methods and materials for containment and cleaning up

This product is miscible in water. Stop the flow of material, if this is without risk. Collect dust using vacuum cleaner equipped with HEPA filter.

Large spills: wet down with water and dike for later disposal. Shovel the material into waste container. Collect dust or particulates using a vacuum cleaner with HEPA filter. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water

Small spills: sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of SDS. None necessary. Reduce airborne dust and prevent scattering by moistening with water.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. No special environmental precautions required

Section 7: Handling and Storage

Precautions for safe handling: Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Practice good housekeeping.

Conditions for safe storage, including any incompatibilities

No special restrictions on storage with other products. Store in original tightly closed container. Store in a well-ventilated place. Guard against dust accumulation of this material. No special storage conditions required. Keep out of the reach of children. Store away from incompatible materials (see section 10 of the SDS)

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits

USOSHA table Z-1 limits for air contaminants (29 CFR 1910.1000)

Constituents	Type	Value	Form
Inert or Nuisance	PEL	5 mg/m ³	Respirable fraction
Dusts		15 mg/m ³	Total Dust

US. OSHA table z-3 (29 CFR 1910.100)

Constituents	Type	Value	Form
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Inert of Nuisance	TWA	5 mg/m3	Respirable fraction
Dusts		15 mg/m3 50 mppcf 15 mppcf	Total Dust Total Dust Respirable fraction

Biological limit values: No biological exposure limits noted for the ingredient(s)

Exposure guidelines: Occupational exposure to nuisance dust (total and respirable crystalline silica should be monitored and controlled

Appropriate engineering controls: If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn. If material is ground, cut or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear dust goggles

Skin protection: Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other: No special protective equipment required

Respiratory protection: Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eye wash fountain is recommended. Use good industrial hygiene practices in handling this material.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance/Physical State: Solid

Form: Powder, Granular

Color: Various

Odor Threshold: Not available

PH: 9 in presence of water, forms translucent suspension with ph approx. 9.0

Melting/freezing point: Not available

Initial boiling point/range: Not available

Flash point: Non-flammable

Evaporation rate: Not available

Flammability (solid, gas): Not available

Upper/lower flammability or explosive limits

Flammability limit-lower (%): Non-explosive

Flammability limit-upper (%): Non-explosive

Explosive limit-lower (%): Not available

Explosive limit-upper(%): Not available

Vapor pressure: 0.000004 kPa at 25°C

Vapor density: Not available

Relative density: Not available

Solubility(ies)

Solubility(water): Negligible

Partition coefficient (n-octanol/water): Not available

Auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Not available

Other information: MUL=200mg/L

Explosive properties: Not explosive

Molecular formula: UNKNOWN

Oxidizing properties: Not oxidizing

VOC(weight %): CARB

Section 10: Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport

Chemical stability: Stable at normal conditions

Possibility of hazardous reactions: Will not occur

Conditions to avoid: None known. Contact with incompatible materials

Incompatible materials: None known

Hazardous decomposition products: None known

Section 11: Toxicological Information

Information on likely routes of exposure

Inhalation: Dust may irritate respiratory system

Skin contact: Dust or powder may irritate the skin

Eye contact: Dust may irritate the eyes

Ingestion: Expected to be low ingestion hazard

Symptoms related to the physical, chemical and toxicological characteristics

Dust may irritate the respiratory tract, skin and eyes

Information on toxicological effects

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation

Serious eye damage/irritation: Mild irritant to eyes (according to the modified Kay and Calandra criteria)

Respiratory or skin sensitization

Respiratory sensitization: Not a respiratory sensitizer

Skin sensitization: According to the classification criteria of the European Union, the product is not considered as being a skin irritant

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: In June 2003, SCOEL (the EU scientific committee on occupational exposure limits) concluded that the main effect in humans of the inhalation of Respirable crystalline silica dust is silicosis. “There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk...” (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to Respirable dust and Respirable crystalline silica should be monitored and controlled

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects

Specific target organ toxicity- Single exposure: Not classified

Specific target organ toxicity- Not classified: Repeated exposure

Aspiration hazard: Not an aspiration hazard

Chronic effects: In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that “carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.” (IARC monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

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According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to nuisance dust (total and Respirable) and Respirable crystalline silica should be monitored and controlled

Section 12: Ecological Information

Ecotoxicity: The material is not expected to be harmful to aquatic life

Product	Species	Test Result
Bentonite (CAS 1302-78-9) Aquatic, Fish LC50	Rainbow Trout, Donaldson Trout (oncohynchus mykiss)	19000 mg/l, 96 hrs

*Estimates for product may be based on additional component data not shown

Persistence and degradability: No data is available on the degradability of this product

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal Conditions

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations

Hazardous waste code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues/unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: disposal instructions)

Contaminate packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Store containers and offer for recycling of material when in accordance with the local regulations.

Section 14: Transport Information

Regulator	Class	Pack Group	Sub Risk	UN-nr.
U.S. DOT (Non-Bulk) Chemicals NOI	Not Regulated - Not Dangerous Goods			
ADR/RID (International Road/Rail) Environmentally Hazardous Substance, Liquid, n.o.s.	Not Regulated - Not Dangerous Goods			
IATA (Air Cargo) Environmentally Hazardous Substance, Liquid, n.o.s.	Not Regulated - Not Dangerous Goods			
IMDG (Sea) Environmentally Hazardous Substance, Liquid, n.o.s.	Not Regulated - Not Dangerous Goods			

Transport in bulk according to annex II of MARPOL 73/78 and the IBC Code

Not applicable

Section 15: Regulatory Information

U.S. Federal Regulations:

This product is not known to be a “hazardous chemical” as defined by the OSHA hazard communication standard, 29 CFR 1910.1200.

CERCLA Hazardous substance list (40 CFR 302.4)

Not listed



Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories Immediate hazard- No

Delayed hazard- No

Fire hazard- No

Pressure hazard- No

Reactivity hazard- No

SARA 302 Extremely hazardous substance

Not listed

SARA 311/312 hazardous chemical No

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

Clean air act Section 112 hazardous air pollutants list: Not regulated

Clean air act section 112(r) accidental release prevention (40 CFR 68.130): Not regulated

Safe drinking water act Not regulated

Food and drug: Total food additive

Administration: Direct food additive, GRAS food additive

US state regulations

US. California controlled substance. CA department of justice (California health and safety code section 11100)

Not listed

US Massachusetts RTK-Substance list

Not regulated

US New Jersey worker and community right to know act

Not regulated

US Pennsylvania worker and community right to know law

Not listed

US Rhode Island RTK

Not regulated

US California proposition 65

WARNING: this product contains a chemical known to the state of California to cause cancer.

International inventories

Country(s) or region	Inventory Name	On inventory (yes/no)*
Australia	Australian inventory of chemical substance	Yes

Canada	Domestic substances list	Yes
Canada	Non-domestic substance list	No
China	Inventory of existing commercial chemical	Yes
Europe	European inventory of existing commercial chemical substances	Yes
Europe	European list of notified chemical substance	No
Japan	inventory of existing new chemical substances	No
Korea	Existing chemicals list	Yes
New Zealand	New Zealand inventory	Yes
Philippines	Philippine inventory of chemical substances	Yes
USA & Puerto Rico	Toxic substance control act inventory	Yes

*a yes indicates that all components of this product comply with the inventory requirements administered by the governing country(s). A no indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s)

Section 16: Other Information

The information in this publication is believed to be accurate and is given in good faith, but no representation of warranty as to its completeness or accuracy is made. Suggestions for uses or applications are only opinions. Users are responsible for determining the suitability of these products for their own particular purpose. No representing of warranty, expressed or implied, is made with respect to information or products including, without limitation, warranties or merchantability, fitness for a particular purpose, non-fringement of any third party patent or other intellectual property rights including, without limit, copyright, trademark and design.