

## **1. PRODUCT INFORMATION**

Product name	: Bentonite Clay
INCI	: Bentonite
Recommended use	: Not available.
Recommended restrictions	: None known. Workers (and customers, if resold) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.
Supplier	: Windy Point Soap Making Supplies Inc.
Address	: 14, 6125-12 <sup>th</sup> Street SE, Calgary, AB T2H 2K1
Telephone	: 587-318-6678
Emergency Telephone	: (800) 225-3924 Canada, USA, Puerto Rico

## **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.

#### **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.

**Hazards Not Otherwise Classified (HNOC)**

None known.

**Supplemental Information**

Not applicable.

**3. COMPOSITION / INFORMATION INGREDIENTS**

**Substances**

<b>Chemical Name</b>	<b>Common Name and Synonyms</b>	<b>CAS Number</b>	<b>%</b>
Bentonite	Smectile Bentonite Bentonite, Sodian Bentonite, Calcian Sodium-activated Bentonite Montmorillonite	1302-78-9	100

**Constituents**

<b>Chemical Name</b>	<b>CAS Number</b>	<b>%</b>
Calcium Carbonate	471-34-1	
Smectite Group Minerals	1318-93-0	
Quartz	14808-60-7	< = 8
Cristobalite	14464-48-1	< = 2

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 constituents are not relevant for classification and labelling.

**Composition comments**

Occupational Exposure Limits for constituents are listed in Section 8. The purity of the product is 100% w/w. Impurities are not applicable for a UVCB substance.

**4. FIRST AID MEASURES**

**Eye contact**

No specific first aid measures noted. Flush thoroughly with water. If irritation occurs, get medical assistance.

**Skin contact**

Get medical attention if irritation develops and persists. No specific first aid measures noted. Wash skin with soap and water.

**Inhalation**

If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist. No specific first aid measures noted.

**Ingestion**

No specific first aid measures noted. Get medical assistance if discomfort occurs.

**Most important symptoms and effects, both acute and delayed**

Dust in the eyes will cause irritation.

**Indication of any immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically.

**5. FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>). Use any media suitable for the surrounding fires.

**Unsuitable Extinguishing Media**

Not applicable, non-combustible.

**Special hazards arising from the substance or mixture**

None known. The product itself does not burn.

**Advice for firefighters**

Material can be slippery when wet. In the event of fire, cool tanks with water spray. Material can be slippery when wet.

**Specific Methods**

Cool containers exposed to flames with water until well after the fire is out.

**General Fire Hazards**

No unusual fire or explosion hazards noted. This material will not burn.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Material can be slippery when wet. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Avoid inhalation of dust from the spilled material. For personal protection, see section 8 of the SDS. No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. No special environmental precautions required.

**Methods and materials for containment and cleaning up**

If sweeping of a contaminated area is necessary, use a dust suppressant agent which does not react with the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid breathing dust. Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Practice good housekeeping.

**Conditions for safe storage**

No special restrictions on storage with other products. Store in a dry area. Store in original tightly closed container. Keep the container dry. Store in a well-ventilated place. Store away from Incompatible materials (see Section 10 of the SDS). Guard against dust accumulation of this material.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Occupational exposure limits**

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Constituents	Type	Value	Form
Inert or Nuisance Dusts (CAS SEQ250)	PEL	5 mg/m <sup>3</sup>	Respirable fraction
		15 mg/m <sup>3</sup>	Total dust

US OSHA Table Z-3 (29 CFR 1910.1000)

Constituents	Type	Value	Form
Inert or Nuisance Dusts (CAS SEQ250)	TWA	5 mg/m <sup>3</sup>	Respirable fraction
		15 mg/m <sup>3</sup>	Total dust
		50 mppcf	Total dust
		15 mppcf	Respirable fraction

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL. Suitable respiratory protection must be worn.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Use tight fitting goggles if dust is generated. Wear dust-resistant safety goggles where there is danger of eye contact.

**Hand protection**

No protection is ordinarily required under normal conditions of use.

**Other**

Normal work clothing (long sleeved shirts and long pants) is recommended

**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**

Not applicable.

**General hygiene considerations**

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. Use good industrial hygiene practices in handling this material.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: Lump, granular or fine powder.
Physical state	: Solid.
Form	: Powder. Various.
Colour	: Various.
Odour	: None.
Odour threshold	: Not applicable.
pH	: 8.5 – 11
Melting point/freezing point	: > 842°F (> 450°C) / Not applicable.
Initial boiling point and range	: Not applicable.
Flash point	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: This product is not flammable.
Upper/lower flammability or explosive limits	
Flammability limit – lower	: Not applicable.
Flammability limit – upper	: Not applicable.
Explosive limit – lower	: Not applicable.
Explosive limit – upper	: Not applicable.

Vapour pressure	: 0 kPa at 25°C
Vapour density	: Not applicable.
Relative density	: 2.6 g/cm <sup>3</sup>
Solubility	
Solubility (water)	: < 0.9 mg/l
Partition coefficient	: Not applicable.
(noctanol/water)	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: > 932°F (> 500°C)
Viscosity	: Not applicable.
Viscosity temperature	: Not applicable.
Other Information	
Bulk density	: 0.9 – 1.4 g/cm <sup>3</sup>
Explosive limit	: Not applicable.
Explosive properties	: Not applicable.
Explosivity	: Not applicable.
Flame extension	: Not applicable.
Flammability	: Not applicable.
Flammability (flash back)	: Not applicable.
Flammability (Heat of combustion)	: Not applicable.
Flammability (Train fire)	: Not applicable.
Flammability class	: Not applicable.
Flash point class	: Not flammable.
Molecular formula	: UVCB Substance.
Molecular weight	: Not applicable.
Oxidizing properties	: None.
Percent volatile	: 0%
pH in aqueous solution	: 8.5 – 11
Specific gravity	: Not applicable.
VOC (Weight %)	: 0%

## **10. STABILITY AND REACTIVITY**

### **Reactivity**

The product is stable and non-reactive.

**Chemical stability**

Stable under ordinary conditions of use and storage.

**Possibility of hazardous reactions**

Will not occur.

**Conditions to avoid**

Moisture. Avoid temperature exceeding the decomposition temperature. Contact with incompatible materials. Avoid dispersal of dust in the air (i.e. clearing dust surfaces with compressed air).

**Hazardous decomposition products**

None known.

**Incompatible materials**

None.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Ingestion**

Not classified.

**Inhalation**

Inhalation of dusts may cause respiratory irritation.

**Skin contact**

Not classified.

**Eye contact**

Dust in the eyes will cause irritation.

**Symptoms related to the physical, chemical and toxicological characteristics Information on toxicological effects**

**Acute toxicity**

Not classified.

	<b>Species</b>	<b>Test Results</b>
Acute		
<i>Inhalation</i>		
LC50	Rat	> 5.27 mg/l, 4 hrOECD 436
<i>Oral</i>		
LD50	Rat	> 2000 mg/kgOECD 425

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

**Skin corrosion / irritation**

Not classified.

**Serious eye damage / eye irritation**

Dust in the eyes will cause irritation. Mild irritant to eyes (according to the modified Kay and Calandra criteria).

**Respiratory or skin sensitization**

**Respiratory sensitization**

Not classified.

**Skin sensitization**

Not classified.

**Germ cell mutagenicity**

Not classified.

**Carcinogenicity**

In June 2003, SCOEL (The EU Scientific Committee on Occupational Exposure Units) 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. No carcinogenicity data available for this product. Sepiolite was evaluated by IARC as class 3 ("Cannot be classified as to carcinogenicity to humans). Based on readacross with sepiolite, bentonite was assessed as non-carcinogenic. Therefore8 classifications of bentonite for carcinogenicity is not warranted.

**Reproductive toxicity**

Not classified.

**Specific target organ toxicity – single exp.**

Not classified.

**Specific target organ toxicity – repeated**

Not classified.

**Aspiration hazard**

Not available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.



Product	Species	Test Results
Bentonite (CAS 1302-78-9)		
Crustacea	EC50 Daphnia	>100 mg/l, 48 hrs
Other	EC50 Freshwater algae	>100 mg/l, 72 hrs
	LC50 Freshwater fish	16000 mg/l, 96 hrs
	Marine water fish	2800-3200 mg/l, 24 hrs
Aquatic		
Crustacea	EC50 Coon Stripe Shrimp ( <i>Pandalus danae</i> )	24.8 mg/l, 96 hrs
	Dungeness or edible crab ( <i>Cancer magister</i> )	81.6 mg/l, 96 hrs
Fish	LC50 Rainbow trout, Donaldson trout ( <i>Oncorhynchus mykiss</i> )	19000 mg/l, 96 hrs

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

#### **Persistence and Degradability**

Not relevant for inorganic substances.

#### **Bioaccumulative Potential**

Will not bio-accumulate.

#### **Mobility in Soil**

Bentonite is almost insoluble and thus presents a low mobility in most soils.

#### **Mobility in General**

The product has poor water-solubility.

#### **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.

### **13. DISPOSAL CONSIDERATION**

#### **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 product**

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)

**Contaminated packaging**

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

**14. TRANSPORT INFORMATION**

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

**15. REGULATORY INFORMATION**

**US federal regulations**

CERCLA Hazardous Substance List (40 CFR 302.4) – Not Listed

US.OSHA Specifically Regulated Substances (29 CFR1910.1001-1050) - 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 – No

SARA 311/312 Hazardous Chemical - No

SARA 313 (TRI reporting) - Not regulated

**Other federal regulations**

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated

Safe Drinking Water Act (SWDA) Not regulated

Food and Drug Administration (FDA): Total food additive

Direct food additive

GRAS food additive

**US State regulations**

US. Massachusetts RTK – Substance List – Not regulated

US. New Jersey Worker and Community Right-to-Know Act – Not regulated

US. Rhode Island RTK – Not regulated

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

<b>Country or region</b>	<b>Inventory Name</b>	<b>On Inventory (yes/no)</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINESC)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
USA & Puerto Rico	Toxic Substances Control Act (TSCA) 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).

## **16. OTHER INFORMATION**

### **NFPA Ratings**

Health: 0

Flammability: 0

Reactivity: 0

### **HMIS Rating**

Health: 1

Flammability: 0

Reactivity: 0

### **Further information**

This safety data sheet only contains information relating to safety and does not replace any product information or product specification.

## **DISCLAIMER AND CAUTION**

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