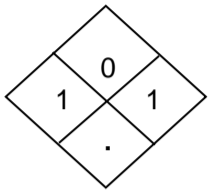



Abbreviations used on this Safety Data Sheet:

N/av. = Not available, N/ap. = Not applicable, ppm = parts per million, TLV = Threshold Limit Value.

NFPA Hazard Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-None, X-Blank

SECTION I - IDENTIFICATION OF THE MATERIAL AND SUPPLIER	
PRODUCT NAME:	GARDEN TREASURE BENTONITE
OTHER NAMES:	Montmorillonite
MATERIAL USE:	Crop Management Tool and Production Aid
MANUFACTURER'S NAME:	Absorbent Products Ltd
STREET ADDRESS:	724 East Sarcee St.
CITY/PROVINCE:	Kamloops, BC
POSTAL CODE:	V2H 1E7
EMERGENCY TELEPHONE NUMBER:	1-800-667-0336
	
<p>NFPA HAZARD RATING: Health - 1, Flammability - 0, Reactivity - 1</p>	
	

**SECTION II - HAZARD IDENTIFICATION**

**SUMMARY:** Prolonged and repeated exposure to excessive concentrations of bentonite dust, or any nuisance dust, can cause chronic pulmonary disease. Dust contact with eyes may cause temporary scratchiness or redness. Long term exposure to airborne bentonite dust containing respirable size ( $\leq 10 \mu$ ) quartz/cristobalite particles, where respirable quartz/cristobalite particle levels are higher than TLV's, may lead to development of silicosis or other respiratory problems. The NTP (National Toxicology Program) and IARC (International Agency for Research on Cancer) has determined that crystalline silica inhaled from **occupational sources** can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure. **A single exposure will not result in serious adverse effects.** The company is not aware of any scientific and medical data available indicating that exposure to dust from this product under conditions of normal use will cause silicosis or cancer, adverse effects would not be expected from normal use of this product.



**MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:** Pre-existing upper respiratory and lung disease, such as, but not limited to: Bronchitis, emphysema, and asthma.

**TARGET ORGAN(S):** Lungs, Eyes.

See SECTION XI - TOXICOLOGICAL INFORMATION

**SECTION III - COMPOSITION OF SUBSTANCE**

HAZARDOUS INGREDIENTS	%	CAS NUMBER	OSHA PEL (ACGIH TLV)	LD50/ LC 50 SPECIES AND ROUTE
Bentonite	Up to 100%	1302-78-9	See Section VIII	N/av.
Free Crystalline Silica or Silica, quartz Silica, cristobalite (Occurs naturally in Bentonite)	$\leq 8\%$	14808-60-7 14464-46-1	See Section VIII	N/av.

For sampling silica dusts refer to NIOSH Analytical Method 7500 or OSHA method ID 142

**SECTION IV - FIRST AID MEASURES**

**Inhalation:** Remove victim to fresh air. If breathing has stopped, a trained person should perform artificial respiration. Acute inhalation can cause dryness of the nasal passage and congestion of the upper respiratory tract.

**Ingestion:** Do not induce vomiting. Short-term exposure not considered harmful. Drink generous amounts of water to reduce bulk and drying effects.

**Eyes:** Wash with large quantities of water. Consult physician if irritation persists. May cause irritation/inflammation.

**Skin:** May cause dryness. Remove contaminated clothing. Wash with soap and water until clean. Use moisture renewing lotions if dryness persists. Product is not absorbed through or by the skin.

<b>SECTION V - FIREFIGHTING MEASURES</b>				
<b>Flammability</b>	<b>No</b>	Upper Flammability Limit (% by Volume)	<b>N/ap.</b>	
Means of Extinction	<b>N/ap.</b>	Lower Flammability Limit (% by Volume)	<b>N/ap.</b>	
Flashpoint (Method)	<b>Non Flammable</b>	Extinguishing Media	<b>N/ap.</b>	
Auto ignition temperature	<b>N/ap.</b>	Special Procedures	<b>Product becomes slippery when wet.</b>	
Hazardous Combustion Products	<b>N/ap.</b>			
<b>Explosion Data</b>				
Sensitivity to Impact	<b>No</b>	Sensitivity to Static Discharge	<b>No</b>	
<b>SECTION VI - ACCIDENTAL RELEASE MEASURES</b>				
<b>PROCEDURE FOR SPILLS / LEAKS:</b>	Avoid creating further dust. Vacuum with equipment fitted with a filter. Alternatively, moisten and sweep or wash away. <u>Note:</u> Product becomes slippery when wet. Dispose of in accordance with local, State, and Federal Regulations.			
<b>SECTION VII - HANDLING AND STORAGE</b>				
<b>HANDLING PROCEDURES</b>				
Avoid creating dust. Repair or properly dispose of broken bags. Use enclosed handling. Product becomes slippery when wet.				
<b>STORAGE REQUIREMENTS</b>				
Store in a dry place to maintain. Keep containers closed and in good condition. Repair damaged containers.				
<b>SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION</b>				
<b>PERMISSABLE EXPOSURE LIMITS:</b> (for airborne, nuisance dusts)	<b>OSHA PEL</b> 8 hr TWA	<b>ACGIH</b> TLV	<b>OHS</b> 8 hr TWA	<b>OHS STEL</b>
Total dust	15 mg/m <sup>3</sup>	Not detected	4 mg/m <sup>3</sup>	n/a
Respirable dust	5 mg/m <sup>3</sup>	Not detected	1.5 mg/m <sup>3</sup>	n/a
Crystalline quartz (respirable)	0.1 mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	n/a
Crystalline cristobalite (respirable)	0.05mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>	n/a
<b>EFFECTS OF CHRONIC EXPOSURE TO PRODUCT.</b> Exposure to quantities of crystalline silica respirable dust ( $\leq 10 \mu$ ), in the forms of quartz, cristobalite or tridymite, may occur when in the presence of airborne dust. If the dust concentration levels are in excess of the OSHA Permissible Limit (PEL-TWA 8hrs) of 0.1mg/m <sup>3</sup> or the ACGIH Threshold Limit Value (TLV) of 0.025mg/m <sup>3</sup> , the crystalline silica present is a known cause of silicosis, a progressive, sometimes fatal, lung disease. From the International Agency for Research on Cancer (IARC), a 2012 review of "Silica Dust, Crystalline, in the form of Quartz or Cristobalite" coded Monograph 100C concluded that Crystalline silica in the form of quartz or cristobalite dust is carcinogenic to humans (Group 1).				
<b>ENGINEERING CONTROLS (SPECIFY, E.G. VENTILATION, ENCLOSED PROCESS)</b>				
Control within recommended TLV/PEL, mechanical filtration to minimize dust. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.				
<b>PERSONAL PROTECTIVE EQUIPMENT</b>				
<b>GLOVES</b>	Not needed under normal conditions of use.			
<b>EYE</b>	Use protective goggles in high dust conditions.			
<b>FOOTWEAR</b>	As required on jobsite.			
<b>CLOTHING</b>	Wear coveralls in high dust conditions.			
<b>RESPIRATOR</b>	Avoid breathing dust. See instructions below			
Bureau of Mines or NIOSH approved respirators for protection against pneumoconiosis producing dusts recommended when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use quarter or half mask respirator (N95) with replacement dust filter or single use dust respirator with valve. If dust concentration is greater than ten (10) times and less than one hundred (100) times the PEL use full faceplate respirator with replaceable dust filter (N95 filter); if greater than one hundred (100) and less than two hundred (200) times the PEL use power air purifying (positive pressure) respirator with replaceable filter (N95 filters); if greater than two hundred (200) times the PEL use type C, automatic-air respirator, continuous flow type (positive pressure), with full face piece, head or helmet.				

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES			
PHYSICAL STATE	solid	ODOR AND APPEARANCE	No odor, buff/beige powder
VAPOR PRESSURE (mm Hg)	N/ap.	DENSITY (20 degrees Celsius)	49lb\cu. ft. +/- 5
VAPOR DENSITY (Air = 1)	N/ap.	SOLUBILITY IN WATER	Insoluble, forms
SPECIFIC GRAVITY (Water=1)	2.25		colloidal suspension
FREEZING POINT	N/ap.	pH	8.5-9.5 (10% slurry)
BOILING POINT	N/ap.	EVAPORATION RATE	N/ap.
SECTION X - STABILITY AND REACTIVITY			
CHEMICAL STABILITY (IF NO, UNDER WHICH CONDITIONS)	YES	X	
	NO		
INCOMPATIBILITY WITH OTHER SUBSTANCES (IF YES, SPECIFY)	YES	X	Hydrofluoric acid - silica may react violently
	NO		
REACTIVITY, AND UNDER WHAT CONDITIONS	N/ap.		
HAZARDOUS DECOMPOSITION PRODUCTS	N/ap.		
CONDITIONS TO AVOID	None in Designed Use		
SECTION XI - TOXICOLOGICAL INFORMATION			
<b>PRIMARY ENTRY ROUTE(S):</b>			
<b>Eyes:</b>	May cause temporary irritation or inflammation.		
<b>Skin:</b>	May cause dryness with continued exposure.		
<b>Ingestion:</b>	Not considered harmful, by mouth, throat, and/or stomach. Minor irritation may occur.		
<b>Inhalation:</b>	Persistent dry cough, throat irritation and labored breathing on exertion are symptomatic of exposure to airborne dust. Exposure may aggravate existing upper respiratory tract diseases such as asthma, bronchitis or emphysema. <b>Acute (short term)</b> exposure to dust levels exceeding the PEL may cause irritation of respiratory tract resulting in a dry cough. Eyes may develop redness and become itchy. <b>Chronic (long term)</b> exposure to crystalline silica contained by airborne respirable bentonite dust, where levels are higher than TLV's, may lead to the development of silicosis, other respiratory problems, or some forms of cancer. From the International Agency for Research on Cancer (IARC), in a 2012 review of SILICA DUST, CRYSTALLINE, IN THE FORM OF QUARTZ OR CRISTOBALITE (monograph 100C) concluded that "Crystalline Silica in the form of quartz or cristobalite dust is <i>carcinogenic to humans</i> (group 1)." The NTP (National Toxicology Program) has determined that "Respirable crystalline silica, primarily quartz dust occurring in industrial and occupational settings, is known to be a human carcinogen."		
SECTION XII - ECOLOGICAL INFORMATION			
Product is generally considered chemically inert in the environment. Used product that has become contaminated may have significantly different characteristics than uncontaminated product, and should be re-evaluated accordingly. Dispose of in accordance with Local, State, and Federal regulations.			
SECTION XIII - DISPOSAL CONSIDERATIONS			
Uncontaminated waste is not hazardous as defined by the Resource Conservation and Recovery Act (RCRA, 40 CFR261). Contaminated waste must be evaluated based on contamination source. Consult local agencies as needed. Dispose of in accordance with Local, State, and Federal regulations.			
SECTION XIV - TRANSPORTATION INFORMATION			
DOT Shipping Name: Not Regulated by DOT		Canada TDG: Not Regulated by TDG	
DOT Hazard Class:	n/a	Hazard Class:	n/a
Identification #:	n/a	UN #:	n/a

<b>SECTION XV - REGULATORY INFORMATION</b>		
<b>OSHA:</b> This material is considered hazardous. See section XI.	<b>WHMIS:</b> Uncontrolled product according to WHMIS classification criteria	
<b>EINECS:</b> Not Listed	<b>CND DSL:</b> This product is listed on the DSL	
<b>TSCA:</b> This material is listed in the TSCA inventory and is not otherwise regulated by TSCA sec 4,5,6,7, or 12	<b>NTP:</b> "Respirable crystalline silica, primarily quartz dust occurring in industrial and occupational settings, is know to be a human carcinogen."	
<b>Calif Prop 65:</b> Listed: Crystalline Silica (airborne particles of respirable size)	<b>RCRA:</b> This material is not defined as hazardous waste	
<b>SECTION XVI - OTHER INFORMATION</b>		
<b>PREPARED BY:</b> Quality Control Staff, Absorbent Products Ltd.	<b>PHONE NUMBER</b> 1-800-667-0336	<b>DATE</b> June, 2015
<p>All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances. No warranty or guarantee, expressed or implied is made by Absorbent Products Ltd., as to the information, or as to the safety, toxicity or the effect of this product.</p>		