

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations Revision Date: 03/16/2015 Date of issue: 02/26/2015 Version: 1.0

#### **SECTION 1: IDENTIFICATION**

Product Identifier
Product Form: Mixture

**Product Name: Bentonite Clay** 

Synonyms: Pond Sealing, Animal Feed Grade, General use

**Intended Use of the Product** 

Pond Sealing, Animal Feed, general use

Name, Address, and Telephone of the Responsible Party

Company

**Chemistry Connection** 

253 Sturgis Rd Conway, AR 72034

(501) 470-9689

www.chemistryconnection.com

**Emergency Telephone Number** 

**Emergency Number** : (501) 470-9689

#### **SECTION 2: HAZARDS IDENTIFICATION**

#### **Classification of the Substance or Mixture**

Classification (GHS-US)

Skin Irrit. 2 H315 Eye Dam. 1 H318 Carc. 1A H350 STOT RE 1 H372

Full text of H-phrases: see section 16

Label Elements
GHS-US Labeling

Hazard Pictograms (GHS-US)





Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H350 - May cause cancer.

H372 - Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statements (GHS-US)**: P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves, protective clothing, and eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention. P362 - Take off contaminated clothing and wash before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national,

territorial, provincial, and international regulations.

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#### **Other Hazards**

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. If involved in a fire or other decomposition occurs: corrosive, toxic, and acrid vapors may be released.

Unknown Acute Toxicity (GHS-US) Not available

#### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Silica, amorphous	(CAS No) 7631-86-9	38.4 - 66	Not classified
Water	(CAS No) 7732-18-5	8 - 20	Not classified
	(0.0.1.) 1000.01.0	10.55 10	20.1.10
Aluminium oxide (Al2O3), hydrate	(CAS No) 1333-84-2	10.56 - 19	Not classified
Quartz	(CAS No) 14808-60-7	1 - 5	Carc. 1A, H350
			STOT SE 3, H335
Inches and dec	(CACAL-) 4222 27 2	45.45	STOT RE 1, H372
Iron oxides	(CAS No) 1332-37-2	1.5 - 4.5	Not classified
Sodium oxide (Na2O)	(CAS No) 1313-59-3	0.9 - 1,	Skin Corr. 1B, H314
	(2.2)	1 - 3.5	Eye Dam. 1, H318
Calcium oxide	(CAS No) 1305-78-8	0.3 - 1,	Skin Irrit. 2, H315
		1 - 2.5	Eye Dam. 1, H318
	(0.5.1.) (0.0.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	0.40	STOT SE 3, H335
Magnesium oxide (MgO)	(CAS No) 1309-48-4	0.48 - 2	Not classified
Silica, cristobalite	(CAS No) 14464-46-1	0.1 - 1	Carc. 1A, H350
			STOT RE 1, H372
Tridymite	(CAS No) 15468-32-3	0.1 - 1	Carc. 1A, H350
			STOT RE 1, H372
Potassium oxide	(CAS No) 12136-45-7	0.12 - 0.7	Skin Corr. 1C, H314
			Eye Dam. 1, H318
Titanium dioxide	(CAS No) 13463-67-7	0.06 - 0.1,	Carc. 2, H351
		0.1 - 0.2	

Full text of H-phrases: see section 16

More than one of the ranges of concentration prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

#### **SECTION 4: FIRST AID MEASURES**

#### **Description of First Aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

**Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.

Ingestion: Do not induce vomiting. Rinse mouth. Seek medical attention if any problems arise.

#### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes serious eye damage. Causes skin irritation. May cause cancer. Repeated or prolonged inhalation may damage lungs. **Inhalation:** May cause respiratory irritation. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

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Skin Contact: Causes skin irritation. Symptoms may include redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Eye Contact:** Causes serious eye damage. Symptoms may include redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** May cause cancer. May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

#### **SECTION 5: FIRE-FIGHTING MEASURES**

#### **Extinguishing Media**

**Suitable Extinguishing Media:** Alcohol-resistant foam. Dry chemical. Carbon dioxide. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### **Special Hazards Arising From the Substance or Mixture**

Fire Hazard: Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not expected to be explosive.

**Reactivity:** Reacts with water. Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

#### **Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: May release corrosive vapors. May liberate toxic gases.

#### **Reference to Other Sections**

Refer to section 9 for flammability properties.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing dust.

#### For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Use safe, appropriate measures.

**For Emergency Personnel** 

**Protective Equipment:** Equip cleanup crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

#### **Environmental Precautions**

Prevent entry to sewers and public waters.

#### Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal.

#### **Reference to Other Sections**

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

#### **SECTION 7: HANDLING AND STORAGE**

#### **Precautions for Safe Handling**

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work.

#### **Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool, and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible Materials: Strong acids. Strong oxidizers. Water.

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#### Specific End Use(s)

Pond Sealing, Animal Feed, General Use

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Cilian amanus 17036 CC	01	
Silica, amorphous (7631-86-		C m = /m 3
USA OSHA	OSHA PEL (TWA) (mg/m³)	6 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m³/%SiO <sub>2</sub> )
Nunavut	OEL TWA (mg/m³)	2 mg/m³ (respirable mass)
		5 mg/m³ (total mass)
		0.05 mg/m³ (regulated under Silica flour-respirable mass)
		0.15 mg/m³ (regulated under Silica flour, total mass)
Northwest Territories	OEL TWA (mg/m³)	2 mg/m³ (respirable mass)
		5 mg/m³ (total mass)
		0.05 mg/m³ (regulated under Silica flour-respirable mass)
		0.15 mg/m³ (total mass, regulated under Silica flour)
Yukon	OEL TWA (mg/m³)	300 particle/mL (as measured by Konimeter
		instrumentation)
		20 mppcf (as measured by Impinger instrumentation)
		2 mg/m³ (respirable mass)
Iron oxides (1332-37-2)		
USA ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	10 mg/m³ Iron Oxide fume
Nunavut	OEL STEL (mg/m³)	10 mg/m³ (fume)
Nunavut	OEL TWA (mg/m³)	5 mg/m³ (fume)
Northwest Territories	OEL STEL (mg/m³)	10 mg/m³ (fume)
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³ (fume)
Magnesium oxide (MgO) (13	09-48-4)	
Mexico	OEL TWA (mg/m³)	10 mg/m³ (fume)
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (inhalable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (fume, total particulate)
USA IDLH	US IDLH (mg/m³)	750 mg/m³ (fume)
Alberta	OEL TWA (mg/m³)	10 mg/m³ (fume)
British Columbia	OEL STEL (mg/m³)	10 mg/m³ (respirable dust and fume)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (fume, inhalable)
		3 mg/m³ (respirable dust and fume)
Manitoba	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (fume)
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction)
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction)
Nunavut	OEL STEL (mg/m³)	20 mg/m³ (fume)
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (fume)
Northwest Territories	OEL STEL (mg/m³)	20 mg/m³ (fume)
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (fume)
Ontario	OEL TWA (mg/m³)	10 mg/m³ (inhalable)
Prince Edward Island	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction)
Québec	VEMP (mg/m³)	10 mg/m³ (fume)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (inhalable fraction)
	3223122 (mg/ m /	

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Saskatchewan	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction)		
Yukon	OEL STEL (mg/m³)	10 mg/m³ (fume)		
Yukon	OEL TWA (mg/m³)	10 mg/m³ (fume)		
Calcium oxide (1305-78-8)				
Mexico	OEL TWA (mg/m³)	2 mg/m³		
USA ACGIH	ACGIH TWA (mg/m³)	2 mg/m³		
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³		
USA NIOSH	NIOSH REL (TWA) (mg/m³)	2 mg/m³		
USA IDLH	US IDLH (mg/m³)	25 mg/m³		
Alberta	OEL TWA (mg/m³)	2 mg/m³		
British Columbia	OEL TWA (mg/m³)	2 mg/m³		
Manitoba	OEL TWA (mg/m³)	2 mg/m³		
New Brunswick	OEL TWA (mg/m³)	2 mg/m³		
Newfoundland & Labrador	OEL TWA (mg/m³)	2 mg/m³		
Nova Scotia	OEL TWA (mg/m³)	2 mg/m³		
Nunavut	OEL STEL (mg/m³)	4 mg/m³		
Nunavut	OEL TWA (mg/m³)	2 mg/m³		
Northwest Territories	OEL STEL (mg/m³)	4 mg/m <sup>3</sup>		
Northwest Territories	OEL TWA (mg/m³)	2 mg/m <sup>3</sup>		
Ontario	OEL TWA (mg/m³)	2 mg/m³		
Prince Edward Island	OEL TWA (mg/m³)	2 mg/m³		
Québec	VEMP (mg/m³)	2 mg/m³		
Saskatchewan	OEL STEL (mg/m³)	4 mg/m³		
Saskatchewan	OEL TWA (mg/m³)	2 mg/m³		
Yukon	OEL STEL (mg/m³)	4 mg/m³		
Yukon	OEL TWA (mg/m³)	2 mg/m³		
Titanium dioxide (13463-67-	7)			
Mexico	OEL TWA (mg/m³)	10 mg/m³		
Mexico	OEL STEL (mg/m³)	20 mg/m³		
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³		
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen		
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)		
USA IDLH	US IDLH (mg/m³)	5000 mg/m³		
Alberta	OEL TWA (mg/m³)	10 mg/m³		
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust)		
		3 mg/m³ (respirable fraction)		
Manitoba	OEL TWA (mg/m³)	10 mg/m³		
New Brunswick	OEL TWA (mg/m³)	10 mg/m³		
Newfoundland & Labrador	OEL TWA (mg/m³)	10 mg/m³		
Nova Scotia	OEL TWA (mg/m³)	10 mg/m³		
Nunavut	OEL TWA (mg/m³)	5 mg/m³ (respirable mass)		
Alaukhaan A.T. ''	OFI TWA ((3)	10 mg/m³ (total mass)		
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³ (respirable mass)		
Ontorio	OFI TMA (mg/m³)	10 mg/m³ (total mass)		
Ontario	OEL TWA (mg/m³)	10 mg/m³		
Prince Edward Island	OEL TWA (mg/m³)	10 mg/m³  10 mg/m³ (containing no Ashestos and <19/ Crystalline)		
Québec	VEMP (mg/m³)	10 mg/m³ (containing no Asbestos and <1% Crystalline silica-total dust)		
Saskatchewan	OEL STEL (mg/m³)	20 mg/m <sup>3</sup>		
Saskatchewan	OEL TWA (mg/m³)	10 mg/m <sup>3</sup>		
Yukon	OEL TWA (IIIg/III ) OEL STEL (mg/m³)	20 mg/m <sup>3</sup>		
TURUIT	OLL STEL (IIIR/III )	20 Hig/III		

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Yukon	OEL TWA (mg/m³)	30 mppcf
		10 mg/m <sup>3</sup>
Silica, cristobalite (14464-46	, -	
Mexico	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
USA ACGIH	ACGIH chemical category	Suspected Human Carcinogen
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	25 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate)
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable)
Manitoba	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
New Brunswick	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nova Scotia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nunavut	OEL TWA (mg/m³)	0.05 mg/m³ (respirable mass)
	, ,	0.15 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	0.05 mg/m³ (respirable mass)
	. 5. ,	0.15 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	0.05 mg/m³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Québec	VEMP (mg/m³)	0.05 mg/m³ (respirable dust)
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
Yukon	OEL TWA (mg/m³)	150 particle/mL
Tridymite (15468-32-3)	022 1 1111 (1118) 111 /	130 particle, 1112
Mexico	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	25 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	0.025 mg/m³ (respirable dust)  0.025 mg/m³ (respirable particulate)
New Brunswick	OEL TWA (flig/fli ) OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m³ (respirable mass)
Nunavut	OEL TWA (mg/m²)	0.15 mg/m³ (total mass)
Nouthwest Touritouise	OEL TWA (mg/m³)	
Northwest Territories	OEL TWA (mg/m²)	0.05 mg/m³ (respirable mass) 0.15 mg/m³ (total mass)
Ouébas	\/FN4D (mg/m3)	0.05 mg/m³ (respirable dust)
Québec	VEMP (mg/m³)	
Yukon	OEL TWA (mg/m³)	150 particle/mL
Quartz (14808-60-7)		
Mexico	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA OSHA	OSHA PEL (STEL) (mg/m³)	250 mppcf/%SiO <sub>2</sub> +5, 10mg/m³/%SiO <sub>2</sub> +2
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	50 mg/m³ (respirable dust)
Alberta	OEL TWA (mg/m³)	0.025 mg/m³ (respirable particulate)
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable)
Manitoba	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
New Brunswick	OEL TWA (mg/m³)	0.1 mg/m³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nova Scotia	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Nunavut	OEL TWA (mg/m³)	0.1 mg/m³ (respirable mass)
		0.3 mg/m³ (total mass)
Northwest Territories	OEL TWA (mg/m³)	0.1 mg/m³ (respirable mass)

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		0.3 mg/m³ (total mass)
Ontario	OEL TWA (mg/m³)	0.10 mg/m³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
Québec	VEMP (mg/m³)	0.1 mg/m³ (respirable dust)
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³ (respirable fraction)
Yukon	OEL TWA (mg/m³)	300 particle/mL

#### **Exposure Controls**

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.









Materials for Protective Clothing: Suitable materials with adequate protection.

**Hand Protection:** Wear protective gloves. **Eye Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator whenever exposure may exceed established Occupational Exposure

Limits

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink, or smoke during use

#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### **Information on Basic Physical and Chemical Properties**

Physical State : Solid

Appearance : Grey Powder
Odor : Earthy
Odor Threshold : Not available

pH : 9-11

Evaporation Rate : Not available
Melting Point : Not available
Freezing Point : Not available
Boiling Point : Not available
Flash Point : Not available
Auto-ignition Temperature : Not available
Decomposition Temperature : Not available

Decomposition Temperature: Not availableFlammability (solid, gas): Not availableLower Flammable Limit: Not availableUpper Flammable Limit: Not availableVapor Pressure: Not availableRelative Vapor Density at 20 °C: Not availableRelative Density: Not available

**Specific Gravity** : 2.65

Solubility : Water: Insoluble
Partition Coefficient: N-Octanol/Water : Not available
Viscosity : Not available

Explosion Data – Sensitivity to Mechanical Impact : Not expected to present an explosion hazard due to mechanical impact Explosion Data – Sensitivity to Static Discharge : Not expected to present an explosion hazard due to static discharge

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#### **SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** Reacts with water. Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

**Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

**Incompatible Materials:** Strong acids. Strong oxidizers. Water.

**Hazardous Decomposition Products:** The decomposition products are corrosive and hazardous to health.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### **Information on Toxicological Effects - Product**

Acute Toxicity: Not classified LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation

**pH:** 9 - 11

Serious Eye Damage/Irritation: Causes serious eye damage

**pH**: 9 - 11

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

**Teratogenicity:** Not classified **Carcinogenicity:** May cause cancer

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs through prolonged or repeated exposure

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss

Symptoms/Injuries After Skin Contact: Causes skin irritation. Symptoms may include redness, pain, swelling, itching, burning,

dryness, and dermatitis

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Symptoms may include redness, pain, swelling, itching, burning,

tearing, and blurred vision

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects

**Chronic Symptoms:** May cause cancer. May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss

#### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

Silica, amorphous (7631-86-9)		
LD50 Oral Rat	> 5000 mg/kg	
LD50 Dermal Rabbit	> 2000 mg/kg	
LC50 Inhalation Rat	> 2.2 mg/l (Exposure time: 1 h)	
Calcium oxide (1305-78-8)		
LD50 Oral Rat	> 2000 mg/kg	
LD50 Dermal Rabbit	> 2500 mg/kg	
Titanium dioxide (13463-67-7)		
LD50 Oral Rat	> 10000 mg/kg	
Quartz (14808-60-7)		
LD50 Oral Rat	> 5000 mg/kg	
LD50 Dermal Rat	> 5000 mg/kg	

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Silica, amorphous (7631-86-9)	
IARC Group	3
Titanium dioxide (13463-67-7)	
IARC Group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Silica, cristobalite (14464-46-1)	
IARC Group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Tridymite (15468-32-3)	
IARC Group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

#### **SECTION 12: ECOLOGICAL INFORMATION**

#### **Toxicity** No additional information available

Silica, amorphous (7631-86-	9)
LC50 Fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)
Calcium oxide (1305-78-8)	
LC50 Fish 1	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])

#### **Persistence and Degradability** Not available

#### **Bioaccumulative Potential**

Silica, amorphous (7631-86-9)		
BCF Fish 1	No bioaccumulation expected	
Calcium oxide (1305-78-8)		
BCF Fish 1	No bioaccumulation	
Disodium carbonate (497-19-8)		
BCF Fish 1	No bioaccumulation	

#### **Mobility in Soil** Not available

#### **Other Adverse Effects**

Other Information: Avoid release to the environment.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, territorial, provincial, and international regulations.

**Ecology – Waste Materials:** Avoid release to the environment.

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#### SECTION 14: TRANSPORT INFORMATION

In Accordance with DOTNot regulated for transportIn Accordance with IMDGNot regulated for transportIn Accordance with IATANot regulated for transportIn Accordance with TDGNot regulated for transport

#### **SECTION 15: REGULATORY INFORMATION**

#### **US Federal Regulations**

Immediate (acute) health hazard Delayed (chronic) health hazard  trol Act) inventory  trol Act) inventory	
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Immediate (acute) health hazard	
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Immediate (acute) health hazard	
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Immediate (acute) health hazard	
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Delayed (chronic) health hazard	
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Immediate (acute) health hazard	
Delayed (chronic) health hazard	
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#### **US State Regulations**

Titanium dioxide (13463-67-7)	
U.S California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of
	California to cause cancer.

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Quartz (14808-60-7)	
U.S California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of
	California to cause cancer.

#### Silica, amorphous (7631-86-9)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Magnesium oxide (MgO) (1309-48-4)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Calcium oxide (1305-78-8)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Potassium oxide (12136-45-7)

U.S. - New Jersey - Right to Know Hazardous Substance List

#### **Titanium dioxide (13463-67-7)**

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Silica, cristobalite (14464-46-1)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Tridymite (15468-32-3)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### Quartz (14808-60-7)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### **Canadian Regulations**

# Black Hills Bond WHMIS Classification Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material





Silica, amorphous (7631-86-9)
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

#### Aluminium oxide (Al2O3), hydrate (1333-84-2)

Listed on the Canadian DSL (Domestic Substances List)

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WHMIS Classification	Uncontrolled product according to WHMIS classification criteria	
Iron oxides (1332-37-2)	·	
Listed on the Canadian DSL (Domestic Substances List)		
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria	
Magnesium oxide (MgO) (1	309-48-4)	
Listed on the Canadian DSL		
Listed on the Canadian IDL (Ingredient Disclosure List)		
IDL Concentration 1 %		
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria	
Calcium oxide (1305-78-8)	<u>'</u>	
Listed on the Canadian DSL (Domestic Substances List)		
Listed on the Canadian IDL (	•	
IDL Concentration 1 %		
WHMIS Classification	Class E - Corrosive Material	
	Class D Division 2 Subdivision B - Toxic material causing other toxic effects	
Potassium oxide (12136-45	-7)	
Listed on the Canadian DSL	(Domestic Substances List)	
WHMIS Classification	Class E - Corrosive Material	
Sodium oxide (Na2O) (1313	(-59-3)	
Listed on the Canadian DSL	·	
WHMIS Classification	Class E - Corrosive Material	
Titanium dioxide (13463-67	·-7)	
Listed on the Canadian DSL		
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects	
Water (7732-18-5)		
Listed on the Canadian DSL	(Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria	
Silica, cristobalite (14464-4	6-1)	
Listed on the Canadian DSL (Domestic Substances List)		
Listed on the Canadian IDL (Ingredient Disclosure List)		
IDL Concentration 1 %		
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects	
Tridymite (15468-32-3)		
Listed on the Canadian IDL (	Ingredient Disclosure List)	
IDL Concentration 1 %		
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects	
Quartz (14808-60-7)		
Listed on the Canadian DSL	(Domestic Substances List)	
Listed on the Canadian IDL (	Ingredient Disclosure List)	
IDL Concentration 1 %		
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects	
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS		
contains all of the information required by CPR.		

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#### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 03/16/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200.

#### **GHS Full Text Phrases:**

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 1A	Carcinogenicity Category 1A
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2

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