

## Bengal Bay Garnet

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Bengal Bay Garnet
<b>Recommended Use</b>	Filtration sand, abrasive jet cutting and blastcleaning media.
<b>Restrictions on Use</b>	Use only as directed.
<b>Manufacturer/Supplier Identifier</b>	Shape Mined Materials 1145 85 <sup>th</sup> Avenue SE, Tumwater, WA 98501, <a href="http://www.shapegarnet.com">www.shapegarnet.com</a> (USA and Canada), 1-855-493-5064
<b>Emergency Phone No.</b>	Outside North America, 1-360-866-7161, 24 hours

SDS No. 0993

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation.

#### Label Elements



#### WARNING

May cause respiratory irritation.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Iron Oxide	1309-37-1	34-45	Fe <sub>2</sub> O <sub>3</sub>
Silicon Dioxide	7631-86-9	25-40	SiO <sub>2</sub>
Aluminum oxide	1344-28-1	13-20	Al <sub>2</sub> O <sub>3</sub>
Magnesium oxide	1309-48-4	4-6	MgO
Titanium Dioxide	13463-67-7	1-7	TiO <sub>2</sub>
Silica, crystalline quartz	14808-60-7	<1.0	SiO <sub>2</sub>
Calcium oxide, reacted	1305-78-8	0.5-2.5	CaO
Manganese oxide	1317-35-7	0.2-0.8	MnO

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

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**Skin Contact**

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

**Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

Seek immediate medical attention should irritation or pain persists.

**Ingestion**

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Call a Poison Centre or doctor if you feel unwell.

**Most Important Symptoms and Effects, Acute and Delayed**

If in eyes:

May cause moderate to severe irritation.

May irritate or cause inflammation or pulmonary fibrosis of the respiratory system.

**Immediate Medical Attention and Special Treatment****Target Organs**

Respiratory system.

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing Media****Suitable Extinguishing Media**

Not combustible. Use extinguishing agent suitable for surrounding fire.

**Specific Hazards Arising from the Product**

Does not burn. NFPA Rating = 0.

Not known to generate any hazardous decomposition products in a fire.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment, and Emergency Procedures**

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

**Environmental Precautions**

Although this product is not classified as an environmentally hazardous material, large or frequent spills may cause potential problems.

**Methods and Materials for Containment and Cleaning Up**

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Avoid generating dusts. Wear personal protective equipment to avoid direct contact with this chemical.

**Conditions for Safe Storage**

Store in an area that is: dry.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters**

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Silicon Dioxide			5 mg/m3 *			

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Iron Oxide	5 mg/m3 * A4		10 mg/m3 *		
Aluminum oxide	1 mg/m3 * A4		5 mg/m3 *		
Magnesium oxide	10 mg/m3 * A4		15 mg/m3		
Titanium Dioxide	10 mg/m3		15 mg/m3		
Calcium oxide, reacted	2 mg/m3		5 mg/m3		
Manganese oxide	0.2 mg/m3				
Silica, crystalline quartz	0.025 mg/m3 * A2				

\* Respirable total dust, OSHA (PEL)= 15 mg/m3 crystalline Silica, ACGIH, TWA, 0.10 mg / m3 (ACGIH), 0.025 mg /m3, respirable.

#### Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

#### Individual Protection Measures

##### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible. Do not get in eyes.

##### Skin Protection

Avoid repeated or prolonged skin contact. Always wear insulated protective clothing, if contact is possible.

##### Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N95 or higher rating filter(s).

In conditions where the levels of airborne dust exceed the capabilities of the above referenced respirators, a supplied-air respirator may be necessary.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	Red - brown crystals.
<b>Odor Threshold</b>	Not applicable
<b>pH</b>	Not applicable
<b>Melting Point/Freezing Point</b>	Not applicable (freezing)
<b>Initial Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	Not available
<b>Solubility</b>	Not applicable in water
<b>Auto-ignition Temperature</b>	Not applicable
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Bulk Density</b>	2.4 kg/L

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## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

Not applicable.

### Conditions to Avoid

Generation of dust.

### Incompatible Materials

Oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid).

### Hazardous Decomposition Products

Not applicable.

## SECTION 11. TOXICOLOGICAL INFORMATION

This product may exhibit a low level of radioactivity common to many naturally occurring minerals. The total uranium and thorium content is less than 0.05% (500ppm). Any material containing a combined total of 0.05% or more of uranium or thorium must be licensed as regulated under the Atomic Energy Control Regulation.

### Likely Routes of Exposure

Inhalation. Skin contact. Eye contact. Ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Silicon Dioxide	Not available	10,000 mg/m <sup>3</sup> (rat)	Not available
Iron Oxide	Not available	> 10,000 mg/kg (rat)	Not available
Aluminum oxide	Not available	> 5,000 mg/kg (rat)	Not available
Magnesium oxide	Not available	810 mg/kg (mouse)	Not available
Titanium Dioxide	> 6,820 mg/m <sup>3</sup> (rat)	> 25,000 mg/kg (rat)	Not available
Calcium oxide, reacted	Not available	> 2,000 mg/kg (rat)	Not available
Manganese oxide	Not available	Not available	Not available
Silica, crystalline quartz	Not available	22,500 mg/kg (rat)	Not available

### Skin Corrosion/Irritation

May cause irritation.

### Serious Eye Damage/Irritation

May cause moderate to severe irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

May irritate or cause inflammation or pulmonary fibrosis of the respiratory system.

#### Skin Absorption

May cause irritation.

#### Ingestion

May cause irritation.

### Aspiration Hazard

May be drawn into the lungs (aspirated) if swallowed or vomited.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Long term inhalation of dusts can attribute to risk of lung diseases. Inhalation of respirable silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of silica dust may cause

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serious health effects which can include the following; Silicosis, Accelerated Silicosis, Acute Silicosis, Cancer, Autoimmune Disease, Tuberculosis and Kidney Disease.

#### **Respiratory and/or Skin Sensitization**

May cause irritation on prolonged contact.

#### **Carcinogenicity**

Crystalline Silica (quartz) has been determined as carcinogen.

#### **Reproductive Toxicity**

##### **Development of Offspring**

There is no evidence this product contributes Teratogenicity or Embryo toxicity.

##### **Sexual Function and Fertility**

No ingredients in this product are known to contribute to reproductive toxicity.

##### **Effects on or via Lactation**

No information was located.

#### **Germ Cell Mutagenicity**

Not known to be a mutagen.

#### **Interactive Effects**

None known.

## **SECTION 12. ECOLOGICAL INFORMATION**

Although this product is not classified as an environmentally hazardous material, large or frequent spills may cause potential problems.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal Methods**

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.

## **SECTION 14. TRANSPORT INFORMATION**

Not regulated under US DOT Regulations or under Canadian TDG Regulations.

## **SECTION 15. REGULATORY INFORMATION**

#### **Safety, Health and Environmental Regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

## **SECTION 16. OTHER INFORMATION**

**SDS Prepared By** Alan Bennett  
**Phone No.** 855-493-5064  
**Date of Preparation** February 16, 2016  
**Revision Date** February 17, 2017  
**Key to Abbreviations** ACGIH® = American Conference of Governmental Industrial Hygienists  
OSHA = US Occupational Safety and Health Administration  
HSDB® = Hazardous Substances Data Bank

#### **Disclaimer**

To the best of our knowledge, the information contained herein is accurate.  
Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.  
Shape Mined Materials assumes no liability arising out of the use of this product by others.

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