



# Preferred Pearl, Preferred Garnet, Preferred Garnet Ice, Preferred Chrome, Preferred PropIntense (All Grades)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, 26 March 2012 / Rules and Regulations

Revision Date: 10AUG2017

Supersedes Date: 14AUG2015

Version: 7.2

### SECTION 1: IDENTIFICATION

#### Product Identifier

**Product Name:** Preferred Pearl, Preferred Garnet, Preferred Garnet Ice, Preferred Chrome (All Grades)

**Synonyms:** Resin Coated Proppant Sand

#### Intended Use of the Product

Proppant. For professional use only.

#### Name, Address, and Telephone of the Responsible Party

##### Company

Preferred Sands  
One Radnor Corporate Center  
100 Matsonford Road Ste 101  
Radnor, PA 19087  
855-FRAC HELP / 855-372-2435

[www.preferredsands.com](http://www.preferredsands.com)

**Emergency Telephone Number:** (800) 424-9300 (CHEMTREC)

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

##### Classification (GHS-US)

Comb. Dust  
Carc. 1A H350  
STOT SE 3 H335  
STOT RE 1 H372

#### Label Elements

##### GHS-US Labeling

##### Hazard Pictograms (GHS-US)



##### Signal Word (GHS-US)

##### Hazard Statements (GHS-US)

##### Precautionary Statements (GHS-US)

- : Danger
- : Comb. Dust - May form combustible dust concentrations in air
- H335 - May cause respiratory irritation
- H350 - May cause cancer (Inhalation)
- H372 - Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation)
- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P260 - Do not breathe dust.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271+P280 - Use only outdoors or in a well-ventilated area. Wear respiratory protection.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P308+P313 - If exposed or concerned: Get medical advice/attention.
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

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#### Other Hazards

**Other Hazards Not Contributing to the Classification:** Dust may cause mechanical irritation to eyes, nose, throat, lungs. Exposure may aggravate pre-existing conditions and/or increase the risk of certain disease. There is some evidence that exposure to respirable crystalline silica (quartz) is associated with increased incidence of kidney diseases, including end stage renal disease.

**Unknown Acute Toxicity (GHS-US)** Not available

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Name	Product identifier (CAS)	% (w/w)	Classification (GHS-US)
Quartz	14808-60-7	98-99	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Polyurethane Resin (Nuisance Dust)	57029-46-6	1-2	Not classified (Article)

Full text of H-phrases: see section 16

### 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. Call a POISON CENTER/doctor/physician if you feel unwell.

**Skin Contact:** Remove contaminated clothing. Gently wash with plenty of soap and water. Do not rub.

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

**Ingestion:** Rinse mouth. Do NOT induce vomiting.

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

**Symptoms/Injuries:** Irritation of respiratory tract.

**Symptoms/Injuries After Inhalation:** Chronic inhalation of respirable quartz (crystalline silica) may cause silicosis, a fibrosis or scarring of the lungs. Silicosis may be progressive and may lead to disability and death. Adverse health effects such as lung disease, silicosis, cancer, autoimmune disease, tuberculosis and nephrotoxicity can occur with exposure. There are generally no symptoms or signs of exposure to quartz. Chronic silicosis often has no symptoms. Acute silicosis can occur with exposures to very high concentrations of respirable quartz over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

**Symptoms/Injuries After Skin Contact:** Prolonged contact with dust may cause mechanical irritation.

**Symptoms/Injuries After Eye Contact:** Prolonged contact will cause mechanical irritation and may result in corneal injury.

**Symptoms/Injuries After Ingestion:** None expected under normal conditions of use.

**Chronic Symptoms:** Prolonged and frequent exposure through inhalation may cause cancer or damage lungs.

#### 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:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** None known.

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

**Fire Hazard:** Combustible Dust.

**Explosion Hazard:** Polyurethane resin dust in sufficient quantities can result in an explosive mixture in air. Personnel that encounter polyurethane resin dust must take precautions to eliminate static electricity as most static electric discharges release a sufficient amount of energy to ignite polyurethane resin dust.

**Reactivity:** Product is stable.

#### Advice for Firefighters

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

**Firefighting Instructions:** Fight fire from safe distance and protected location.

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

**Hazardous Combustion Products:** May release toxic fumes.

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#### 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:** Do not breathe dust. Avoid generating dust. Keep away from heat, sparks, open flame and static discharges.

#### For Non-Emergency Personnel

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

**Emergency Procedures:** Evacuate unnecessary personnel.

#### For Emergency Personnel

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

**Emergency Procedures:** Ventilate area.

**Environmental Precautions** Not available

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

**For Containment:** Contain and collect as any solid.

**Methods for Cleaning Up:** Avoid generation of dust during clean-up of spills. Use only non-sparking tools.

**Reference to Other Sections** See heading 8, Exposure Controls and Personal Protection.

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

#### Precautions for Safe Handling

**Additional Hazards When Processed:** Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Use only outdoors or in a well-ventilated area. Do not breathe dust.

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

**Storage Conditions:** Store in a well-ventilated place.

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

**Specific End Use(s)** Proppant. For professional use only.

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

#### Control Parameters

<b>Quartz (14808-60-7)</b>		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (STEL) (mg/m <sup>3</sup> )	250 mppcf/%SiO <sub>2</sub> +5, 10mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
Manitoba	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Newfoundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
Nunavut	OEL TWA (mg/m <sup>3</sup> )	0.3 mg/m <sup>3</sup> (total mass)
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	0.3 mg/m <sup>3</sup> (total mass)
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.10 mg/m <sup>3</sup> (designated substances regulation)
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
Québec	VEMP (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
Yukon	OEL TWA (mg/m <sup>3</sup> )	300 particle/mL
<b>Particles Not Otherwise Regulated (PNOR)</b>		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust)
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (respirable fraction)

## Exposure Controls

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment:** Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Not available

**Hand Protection:** Impermeable protective gloves.

**Eye Protection:** In case of dust production: protective goggles.

**Skin and Body Protection:** Wear suitable working clothes.

**Respiratory Protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.

**Other Information:** When using, do not eat, drink or smoke

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Grayish/Black, Green or Red Granular Sand
Odor	: Odorless
Odor Threshold	: Not available
pH	: 6.5 - 7.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting/Freezing Point	: 1610 C (Melting Point)
Boiling Point	: 2230 C
Flash Point	: Not flammable
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Upper and Lower Flammable Limits	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density/Specific Gravity	: 2.5 (water = 1)
Density	: 2.5 g/ml
Solubility	: Insoluble in water.
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.

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Product is stable.

**Chemical Stability:** Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Sparks, heat, open flame and other sources of ignition. Avoid creating or spreading dust.

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

**Hazardous Decomposition Products:** Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Not classified (pH: 6.5 - 7.5)

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**Serious Eye Damage/Irritation:** Not classified (pH: 6.5 - 7.5)

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not available

**Carcinogenicity:** May cause cancer (Inhalation).

**Specific Target Organ Toxicity (Repeated Exposure):** Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** May cause respiratory irritation.

**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:** Prolonged contact with large amounts of dust may cause mechanical irritation.

**Symptoms/Injuries After Eye Contact:** Repeated or prolonged contact will cause mechanical irritation. Prolonged contact may result in corneal injury.

**Symptoms/Injuries After Ingestion:** None expected under normal conditions of use.

**Chronic Symptoms:** Prolonged and frequent exposure through inhalation may cause cancer. Repeated or prolonged inhalation may damage lungs.

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

#### LD50 and LC50 Data:

<b>Quartz (14808-60-7)</b>	
Oral LD50 (Rat)	500 mg/kg
<b>Quartz (14808-60-7)</b>	
IARC Group	1
National Toxicity Program (NTP) Status	Known Human Carcinogens.

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity** Not classified

**Persistence and Degradability** Not available

**Bioaccumulative Potential** Not available

**Mobility in Soil** Not available

**Other Adverse Effects** Not available

## SECTION 13: DISPOSAL CONSIDERATIONS

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

## SECTION 14: TRANSPORT INFORMATION

**14.1 In Accordance with DOT** Not regulated for transport

**14.2 In Accordance with IMDG** Not regulated for transport

**14.3 In Accordance with IATA** Not regulated for transport

**14.4 In Accordance with TDG** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

<b>Preferred Pearl, Preferred Garnet, Preferred Garnet Ice, Preferred Chrome Preferred PropIntense (All Grades)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard Delayed (chronic) health hazard
<b>Quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

### US State Regulations

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

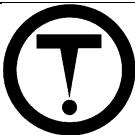
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California to cause cancer.
<b>Quartz (14808-60-7)</b>
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List

**Canadian Regulations**

<b>Preferred Pearl, Preferred Garnet, Preferred Garnet Ice, Preferred Chrome Preferred PropIntense (All Grades)</b>	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
	
<b>Quartz (14808-60-7)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
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.

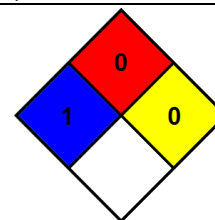
**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision date** : 10 Aug 2017  
**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:**

Carc. 1A	Carcinogenicity Category 1A
Comb. Dust	Combustible Dust
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
Comb. Dust	May form combustible dust concentrations in air
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

**NFPA Health Hazard** : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.  
**NFPA Fire Hazard** : 0 - Materials that will not burn.  
**NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



**HMIS III Rating**

**Health** : 1 Slight Hazard - Irritation or minor reversible injury possible  
**Flammability** : 0 Minimal Hazard  
**Physical** : 0 Minimal Hazard  
**Personal Protection** : E

**Party Responsible for the Preparation of This Document**

Preferred Sands

Phone: 855-FRAC HELP / 855-372-2435

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