SAFETY DATA SHEET – Preferred Pearl, Preferred Chrome, Preferred Garnet, Preferred PropIntense (All Grades) Proppant Sand

Product Name: Preferred Pearl, Preferred Chrome, Preferred Garnet, Preferred PropIntense (All Grades) Proppant Sand
Product Use: Proppant. For professional use only.
Supplier: **Preferred Proppants** 104 S Wayne Ave #8308 Wayne, PA 19087 www.preferredsands.com
For Non-Emergency information and General Inquiries: 855-372-2435
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture	
OSHA Classification (GHS-US)	Carcinogen 1A, STOT SE 3, STOT RE 1
WHMIS Classification	Carcinogen 1A, STOT SE 3, STOT RE 1
Hazard Pictograms (GHS-US)	
Signal Word (GHS-US)	Danger
Hazard Statements (GHS-US)	May cause respiratory irritation by abrasion May cause cancer (Inhalation) Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation)
Precautionary Statements (GHS-US)	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear respiratory protection. If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned: Get medical advice/attention. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards Not Contributing to the Classification:	Dust may cause irritation by abrasion 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)	0%

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	Product identifier (CAS)	% (w/w)	Classification (GHS-US)
Silica Sand (Quartz)	14808-60-7	98.0-99.5%	Carc. 1A, STOT SE 3, STOT RE 1
Polymer Coating		0.5-2.0%	Not a hazardous substance and bound to silica

4. FIRST AID MEASURES

Description of First Aid Measures	
General:	Immediately flush eyes with running water for at least 15 minutes. Seek medical attention for irritation.
Inhalation:	Wash with soap and water.
Skin Contact:	Move to fresh air. Seek medical attention if irritation develops.
Eye Contact:	Rinse mouth with water. Get medical attention if discomfort persists.
Ingestion:	Treat symptomatically.

Most Important Symptoms and Effects Both Acute and Delayed	
Symptoms/Injuries:	Irritation by abrasion 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 irritation by abrasion.
Symptoms/Injuries After Eye Contact:	Prolonged contact will cause irritation by abrasion 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.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Agents	Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Agents	None known
Products of Combustion	None anticipated

Advice for Firefighters	
Precautionary Measures Fire	Exercise caution when fighting any fire
Firefighting Instructions	Fight fire from safe distance and protected location.
Hazardous Combustion Products	May release toxic fumes, including Formaldehyde, Silicon Oxides, and Carbon Oxides
Protection of Firefighters	Fire fighters should wear “bunker gear” and Self-Contained Breathing Apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Do not breathe dust. Avoid generating dust.
Environmental Precautions	Not available

For Non-Emergency Personnel	
Protective Equipment:	Use appropriate personal protection equipment (PPE).
Method of Cleanup	Shovel into containers for reuse. Do not use product contaminated with dirt, water or other materials. Contaminated materials should be disposed of in a suitable facility.

Methods and Material for Containment and Cleaning Up	
For Containment:	Use appropriate personal protection equipment (PPE).
Methods for Cleaning Up:	Avoid generation of dust during clean-up of spills. Use only non-sparking tools.

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

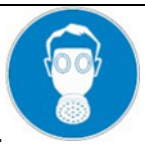
7. HANDLING AND STORAGE

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.
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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Quartz (14808-60-7) (Respirable dust only)		
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³
USA OSHA	OSHA PEL (STEL) (mg/m³)	250 mppcf/%SiO_2+5, 10mg/m³/%SiO_2+2
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³
USA IDLH	US IDLH (mg/m³)	50 mg/m³
Alberta	OEL TWA (mg/m³)	0.025 mg/m³
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³
Yukon	OEL TWA (mg/m³)	300 particle/mL
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³

Particles Not Otherwise Specified		
USA OSHA	OSHA PEL (TWA)(mg/m³)	15 mg/m³ (total dust)
USA OSHA	OSHA PEL (TWA)(mg/m³)	5 mg/m³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (total dust)
USA ACGIH	ACGIH TWA (mg/m³)	3 mg/m³ (respirable fraction)

Appropriate Engineering Controls	Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	Insufficient ventilation: wear respiratory protection. 
Materials for Protective Clothing	Specific materials not required.
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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid		**Flash point**	Not flammable
Appearance	Grayish/Black, Green or Red Granular Sand		**Upper/lower Flammable Limits**	Not available
Odor	Odorless		**Auto-ignition Temperature**	Not available

Odor Threshold	Not available		**Decomposition temperature**	Not available
pH	Not applicable		**Relative Evaporation Rate (butyl acetate=1)**	Not available
Boiling Point	2230 C		**Vapor Pressure**	Negligible
Melting/Freezing Point	2930 ºF (1610 ºC)		**Relative Vapor Density at 20 °C**	Not available
Solubility	Insoluble in water		**Density**	2.5 (vs water)
Viscosity	Not available		**Octanol/Water Partition Coefficient**	Not available
Flammability (solid, gas)	Not available		**Relative Density/Specific Gravity**	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.

Note: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity:	Product is stable.
Chemical Stability:	Product is not explosive.
Conditions to Avoid:	Sparks, heat, open flame and other sources of ignition. Avoid creating or spreading dust.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Incompatible Materials:	Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products:	Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride.

11. TOXICOLOGICAL INFORMATION

No investigations were carried out with the preparation itself. The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See Section 2 “Hazards Identification.	
Acute Toxicity	Not classified
LD50 and LC50 Data:	Not available but considered systemically non-toxic.
Skin Corrosion/Irritation	Not classified (**pH:** 6.5 - 7.5) in solution
Serious Eye Damage/Irritation	Not classified (**pH:** 6.5 - 7.5) in solution
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 by abrasion.
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 irritation by abrasion.
Symptoms/Injuries After Eye Contact	Repeated or prolonged contact will cause irritation by abrasion. 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:**	
Quartz (14808-60-67)	
Oral Rat	> 5000mg/kg
Quartz (14808-60-7)	
IARC Group	1
National Toxicity Program(NTP) Status	Known Human Carcinogens.

12. ECOLOGICAL INFORMATION

Toxicity	Not classified
Persistence and Degradability	Not available
Bio-accumulative Potential	Not available
Other Adverse Effects	Not available

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

In Accordance with DOT	Not regulated for transport
In Accordance with IMDG	Not regulated for transport
In Accordance with IATA	Not regulated for transport
In Accordance with TDG	Not regulated for transport

15. REGULATORY INFORMATION

US Federal Regulations	
Quartz (14808-60-7)	
SARA Section 311/312 Hazard Classes	Carcinogen 1A. STOT SE -3. STOT RE-1
TSCA (Toxic Substances Control Act)	Listed on the United States TSCA inventory

US State Regulations
Quartz (14808-60-7)
U.S. - California - Proposition 65 – Carcinogens - Listed
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	
WHMIS Classification 2015	Carcinogen 1A. STOT SE -3. STOT RE-1
Quartz (14808-60-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Listed on the Canadian Ingredient Disclosure List	

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.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date	23 Apr 2021
Version	8.6
Former Version Date	19 Jan 2021
Revision Changes	Updated Composition Percentages

National Fire Protection Association (NFPA):		
NFPA Health Hazard	1	Exposure could cause irritation by abrasion but only minor residual injury even if no treatment is given.
NFPA Flammability	0	Materials that will not burn.
NFPA Reactivity	0	Normally stable, even under fire exposure conditions

Hazardous Material Identification System (HMIS):		
Health	1	Slight Hazard - Irritation by abrasion or minor reversible injury possible
Flammability	0	Minimal Hazard
Physical	0	Minimal Hazard
PPE	E	

Ratings are based on 0-4 rating scale, with 0 representing minimal hazard or risk, and 4 representing severe hazard or risk.

E: Safety goggles, gloves and a particulate respirator

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