ProREZ™
Performance Resins and Coatings
ProREZ Coatings, LLC
P.O. Box 153, Cromwell, CT 06416-0153
877.511.3456 ● www.prorezcoatings.com

Safety Data Sheet

Date Issued: 1/25/17 **Version: 1.0**

1. CHEMICAL PRODUCTS AND COMPANY IDENTIFICATION

Product Names/Trade Names: ProQuartz 40, ProQuartz 25, TrowelQuartz
Chemical Family: Sand, Silica Sand, Quartz, Flint, Crystalline Silica
Manufacturer's Name: ProREZ Coatings, LLC
PO BOX 153
Cromwell, CT 06416-0153 USA
General No.: (877) 511-3456 (8:00am to 5:00pm Eastern Time)

Company 24 Hour Emergency Response Information: CHEMTEL: 1-800-255-3924
Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

2. HAZARDS IDENTIFICATION

Emergency Overview: Caution: May cause skin or eye irritation. May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated exposure by inhalation.

Crystalline silica (quartz) is not known to be an environmental hazard. Crystalline silica (quartz) is incompatible with hydrofluoric acid, fluorine, chlorine trifluoride or oxygen difluoride.

NON HAZARDOUS; NON DANGEROUS GOODS
Non-dangerous goods for transport according to the ADG code.
Non-hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) regulations 2001 and NOHSC

Classification of the substance
CARCINOGENICITY – Category 1A
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) – Category 1

Label Elements
Hazardous components that must be listed on the label:
Contains silica/quartz
Signal word: Not Required
Pictograms:

Hazard Statements:
H315 Causes skin irritation
H320 Causes eye irritation
H335 May cause respiratory irritation
H350 May cause cancer (Inhalation)
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements
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 hand and face thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P284 Wear respiratory protection

Route of Entry: Eye contact, skin contact, Inhalation.
Target Organ: Lungs.

General Information: This product does contains carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas. IARC: Crystalline silica (quartz) is classified in IARC Group 1

Read the entire SDS for a more thorough evaluation of the hazards.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	% By Weight	CAS Number
Crystalline Silica (quartz)	95-99.90%	14808-60-7

4. FIRST-AID MEASURES

Eye contact: Rinse immediately with water for at least 15 minutes.If irritation persists, seek medical attention.
Skin Contact: Not applicable.
Ingestion: Not applicable.
Inhalation: No specific first-aid is necessary since the adverse health effects associated with exposure to crystalline silica (quartz) result from chronic exposures. If there is a gross inhalation of crystalline silica (quartz), remove the person immediately to fresh air, give artificial respiration as needed, seek medical attention as needed.

5. FIRE-FIGHTING MEASURES

Crystalline silica (quartz) is not flammable, combustible or explosive.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: No action shall be taken involving any personal risk or without suitable training. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Methods for Cleaning up: Use dustless methods (vacuum) and place into closable container for disposal, or flush with water. Do not dry sweep. Wear protective equipment.

7. HANDLING AND STORAGE

Handling: Do not breathe dust. Use adequate ventilation and dust collection. Keep airborne dust concentrations below permissible exposure limit ("PEL"). Do not rely on your sight to determine if dust is in the air. Respirable crystalline silica dust may be in the air without a visible dust cloud. If crystalline silica dust cannot be kept below permissible limits, wear a respirator approved for silica dust when using, handling, storing or disposing of this product or bag. See Section 8 for further information on respirators. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain, clean, and fit test respirators in accordance with OSHA regulations. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing that has become dusty.

Storage: Avoid breakage of bagged material or spills of bulk material. Use dustless methods (vacuum) and place into closable container for disposal, or flush with water. Do not dry sweep.

The OSHA Hazard Communication Standard, 29 CFR 1910.1200, 1915.1200, 1917.28, 1918.90, 1926.59 and 1928.21, and state and local worker or community "right-to-know" laws and regulations needs to be strictly followed. **WARN EMPLOYEES (AND YOUR CUSTOMERS IN CASE OF RESALE) BY POSTING AND OTHER MEANS OF THE HAZARDS AND THE REQUIRED OSHA PRECAUTIONS. PROVIDE TRAINING FOR YOUR EMPLOYEES ABOUT THE OSHA PRECAUTIONS.**

For additional precautions, see American Society for Testing and Materials (ASTM) standard practice E 1132-99a, "Standard Practice for Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica."

Do not use ProREZ aggregates material or quartz for sandblasting.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	OSHA TWA	ACGIH TWA	NIOSH TWA
Crystalline Silica (quartz)	$\frac{10 mg/m^3}{\%SiO_2 + 2}$	$0.025 mg/m^3$	$0.05 mg/m^3$

Local Exhaust Ventilation: Use sufficient local exhaust ventilation to reduce the level of respirable crystalline silica to below the OSHA PEL. See ACGIH "Industrial Ventilation, A Manual of Recommended Practice" (latest edition).

Respiratory Protection: If it is not possible to reduce airborne exposure levels to below the OSHA PEL with ventilation, use the table below to assist you in selecting respirators that will reduce personal exposures to below the OSHA PEL. This table is part of the NIOSH Respirator Selection Logic, 2004, Chapter III, Table 1, "Particulate Respirators". Full document can be found at www.cdc.gov/niosh/npptl/topics/respirators; the user of this SDS is directed to that site for information concerning respirator selection and use. The assigned protection factor (APF) is the minimum anticipated level of protection provided by each type of respirator worn in accordance with an adequate respiratory protection program. For example, an APF of 10 means that the respirator should reduce the airborne concentration of a particulate by a factor of 10, so that if the workplace concentration of a particulate was 150 ug/m^3, then a respirator with an APF of 10 should reduce the concentration of particulate to 15 ug/m^3.

Assigned Protection Factor[1]	Type of Respirator (Use only NIOSH-certified respirators)
10	Any air-purifying elastomeric half-mask respirator equipped with appropriate type of particulate filter.2 Appropriate filtering facepiece respirator.2,3 Any air-purifying full facepiece respirator equipped with appropriate type of particulate filter.2 Any negative pressure (demand) supplied-air respirator equipped with a half-mask.
25	Any powered air-purifying respirator equipped with a hood or helmet and a high efficiency (HEPA) filter. Any continuous flow supplied-air respirator equipped with a hood or helmet.
50	Any air-purifying full facepiece respirator equipped with N-100, R-100, or P-100 filter(s). Any powered air-purifying respirator equipped with a tight-fitting facepiece (half or full facepiece) and a high-efficiency filter. Any negative pressure (demand) supplied-air respirator equipped with a full facepiece. Any continuous flow supplied-air respirator equipped with a tight-fitting facepiece (half or full facepiece). Any negative pressure (demand) self-contained respirator equipped with a full facepiece.
1,000	Any pressure-demand supplied-air respirator equipped with a half-mask.

Special Notes (1, 2, and 3 references above) -
1.The protection offered by a given respirator is contingent upon (a) the respirator user adhering to complete program requirements (such as the ones required by OSHA in 29CFR1910.134), (b) the use of NIOSH-certified respirators in their approved configuration, and (c) individual fit testing to rule out those respirators that cannot achieve a good fit on individual workers.
2.Appropriate means that the filter medium will provide protection against the particulate in question.
3.An APF of 10 can only be achieved if the respirator is qualitatively or quantitatively fit tested on individual workers.

Special Precaution: If crystalline silica (quartz) is heated to more than 870°C, it can change to a form of crystalline silica known as trydimite; if crystalline silica (quartz) is heated to more than 1470°C, it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as trydimite or cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Solid
Odor:	None
Color:	White or tan sand; granular or ground
Melting Point:	3110ºF/1710ºC
Boiling Point:	4046ºF /2230ºC
Vapor Pressure (mmHg):	None
Vapor Density (Air = 1):	None
Specific Gravity (Water = 1):	2.65
Solubility in water:	Insoluble
Evaporation Rate (Butyl Acetate = 1):	None
Volatile Organic Compounds	None

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions. Hazardous reactions will not occur.
Conditions to avoid: Very excessive heat.
Materials to avoid: Contact with powerful oxidizing agents, such as fluorine, chlorine trifluoride and oxygen difluoride, may cause fires.
Hazardous decomposition products: Silica will dissolve in hydrofluoric acid and produce a corrosive gas – silicon tetrafluoride.
Hazardous polymerization: Under normal conditions hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

This material is considered hazardous under the OSHA Hazard Communications Standard (29 CFR 1910.1200).

The method of exposure to crystalline silica that can lead to the adverse health effects described below is inhalation.
A. SILICOSIS: The major concern is silicosis, caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute.

Chronic or Ordinary Silicosis (often referred to as Simple Silicosis) is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis.

Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function or disability.

Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Although there may be no symptoms associated with complicated silicosis or PMF, the symptoms, if present, are shortness of breath, wheezing, cough and sputum production. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (cor pumonale).

Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of initial exposure. Progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and progression is more rapid.

Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica 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.

B. CANCER: IARC - The International Agency for Research on Cancer ("IARC") concluded that there was *"sufficient evidence* in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is *"sufficient evidence* in experimental animals for the carcinogenicity of quartz and cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans (Group 1).*" The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates..." (1997).

NTP - The National Toxicology Program's Eleventh Annual Report on Carcinogens classifies "silica, crystalline (respirable size)" as a known human carcinogen.

OSHA - Crystalline silica (quartz) is not regulated by the U. S. Occupational Safety and Health Administration as a carcinogen.

C. AUTOIMMUNE DISEASES: Several studies have reported excess cases of several autoimmune disorders, -- scleroderma, systemic lupus erythematosus, rheumatoid arthritis -- among silica-exposed workers. For a review of the subject, the following may be consulted: "Occupational Exposure to Crystalline Silica and Autoimmune Disease", Environmental Health Perspectives, Volume 107, Supplement 5, pp. 793-802 (1999); "Occupational Scleroderma", Current Opinion in Rheumatology, Volume 11, pp. 490-494 (1999).

D. TUBERCULOSIS: Individuals with silicosis are at increased risk to develop pulmonary tuberculosis, if exposed to persons with tuberculosis. The following may be consulted for further information: Occupational Lung Disorders, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994); "Risk of pulmonary tuberculosis relative to silicosis and exposure to silica dust in South African gold miners," Occup Environ Med., Volume 55, pp.496-502 (1998).

E. KIDNEY DISEASE: Several studies have reported excess cases of kidney diseases, including end stage renal disease, among silica-exposed workers. For additional information on the subject, the following may be consulted: "Kidney Disease and Silicosis", Nephron, Volume 85, pp. 14-19 (2000).

F. NON-MALIGNANT RESPIRATORY DISEASES: The reader is referred to Section 3.5 of the NIOSH Special Hazard Review cited below, for information concerning the association between exposure to crystalline silica and chronic bronchitis, emphysema and small airways disease. There are studies that disclose an association between dusts found in various mining occupations and non-malignant respiratory diseases, particularly among smokers. It is unclear whether the observed associations exist only with underlying silicosis, only among smokers, or result from exposure to mineral dusts generally (independent of the presence or absence of crystalline silica, or the level of crystalline silica in the dust).

Sources of information: The ***NIOSH Hazard Review - Occupational Effects of Occupational Exposure to Respirable Crystalline Silica*** published in April 2002 summarizes and discusses the medical and epidemiological literature on the health risks and diseases associated with occupation exposures to respirable crystalline silica. The *NIOSH Hazard Review* should be consulted for additional information, and citations to published studies on health risks and diseases associated with occupational exposure to respirable crystalline silica. The *NIOSH Hazard Review* is available from NIOSH - Publications Dissemination, 4676 Columbia Parkway, Cincinnati, OH 45226, or by calling 1-800-35-NIOSH (1-800-356-4676), or through the NIOSH web site, www.cdc.gov/niosh/topics/silica, then click on the link "NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica".

12. ECOLOGICAL INFORMATION

Crystalline silica (quartz) is not known to be ecotoxic; i.e., there are no data that suggests that crystalline silica (quartz) is toxic to birds, fish, invertebrates, microorganisms or plant

13. DISPOSAL CONSIDERATIONS

General: The packaging and material may be landfilled; however, material should be covered to minimize generation of airborne dust.

The above applies to materials as sold by ProREZ Coatings. The material may be contaminated during use, and it is the responsibility of the user to assess the appropriate disposal of the used material in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Crystalline silica (quartz) is not a hazardous material for purposes of transportation under the U. S. Department of Transportation Table of Hazardous Materials, 49 CFR §172.101.

15. REGULATORY INFORMATION

UNITED STATES (FEDERAL AND STATE)
TSCA No.: Crystalline silica (quartz) appears on the EPA TSCA under the CAS No. 14808-60-7.
RCRA: Crystalline silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.
CERCLA: Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.
Emergency Planning and Community Right to Know Act (SARA Title III): Crystalline silica (quartz) is not an extremely hazardous substance under Section 302 and is not a toxic chemical subject to the requirements of Section 313.
Clean Air Act: Crystalline silica (quartz) mined and processed by U.S. Silica Company is not processed with or does not contain any Class I or Class II ozone depleting substances.
FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).
NTP: Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as Known to be a Human Carcinogen.
OSHA Carcinogen: Crystalline silica (quartz) is not listed.
California Proposition 65: Crystalline silica (airborne particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.
California Inhalation Reference Exposure Level (REL): California established a chronic REL of 3 ug for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.
Massachusetts Toxic Use Reduction Act: Silica, crystalline (respirable size, <10 microns) is “toxic” for purposes of the Massachusetts Toxic Use Reduction Act.
Pennsylvania Worker and Community Right to Know Act: Quartz is a hazardous substance under the Act, but it is not a special hazardous substance or an environmental hazardous substance.

CANADA
Domestic Substances List: ProREZ aggregates products, as naturally occurring substances, are on the Canadian DSL.
WHMIS Classification: D2A

National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

16. OTHER INFORMATION

Hazardous Material Information System (HMIS):

Scale 0-4		*NFPA*	*HMIS*
4=Severe Hazard	**Health**	**0**	***, ****
3=Serious Hazard	**Flammability**	**0**	**0**
2=Moderate Hazard	**Reactivity**	**0**	**0**
1=Slight Hazard			
0=Minimal Hazard			

*** = chronic health hazard**
**** For further information on health effects, see Sections 3 and 11 of this SDS.**

THE INFORMATION AND RECOMMENDATIONS PRESENTED HEREIN ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. USER MUST CONDUCT THEIR OWN TESTS TO DETERMINE THE SUITABILITY OF THESE PRODUCTS FOR THEIR PARTICULAR PURPOSES AND USAGE. BECAUSE OF NUMEROUS FACTORS AFFECTING RESULTS, PROREZ COATINGS, LLC AND ITS AFFILIATION MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PURPOSE, OTHER THAN MATERIAL CONFORMS TO OUR APPLICABLE CURRENT SPECIFICATIONS. PROREZ COATINGS, LLC ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE ON THE INFORMATION CONTAINED IN THIS SAFETY DATA SHEET.

END OF DATA SHEET