



Rev. G – January 26, 2016

Safety Data Sheet

Section 1 – Identification

Product Identifier:	Silica Sand
Trade Names:	Trademarks and product names include Silica; Sandtown 40/70 mesh and Sandtown 100 mesh Silica Sand Products also generally referred to as Sandtown Silica, and Frac Sand.
Chemical Name and Formula:	Silica, mainly in the form of quartz (crystalline silica); SiO ₂
Product Use:	Frac Sands, Gravel Pack Sands, Resin Coating Base Sands, Foundry Core and Molding Sands, Industrial Sands, Glass Sands, Filtration Media, Environmental Sands, Grinding Media, Engine Sand, Industrial Fillers, Testing Sands, Recreational and Agricultural Sands.
Restriction on Use:	<i>“This product is not intended for and is strictly prohibited for sandblasting.”</i> This Safety Data Sheet (SDS) and the information contained herein were not developed for abrasive blasting.
Manufacturer’s Name:	Select Sands Corporation
Manufacturer’s Address:	310 – 850 West Hastings Street, Vancouver, BC, Canada V6C 1E1
Manufacturer’s Telephone:	604-639-4533 604-868-7737 (cell)
Manufacturer’s Fax:	604-669-2744
Emergency Number:	604-639-4533

Section 2 – Hazards Identification

GHS Classification:

Health:

Category 1A Carcinogen
Category 1 Specific Target Organ Toxicity (STOT) following repeated exposures
Category 2B Eye Irritation

Signal Word DANGER



Hazard Statements:

May cause cancer by inhalation.
Causes damage to lungs, kidneys, and autoimmune system through prolonged or repeated exposure by inhalation.
Causes eye irritation.

Precautionary Statements

Do not handle until the safety information presented in this SDS has been read and understood.

DO NOT BREATHE DUST.

Do not eat drink or smoke while handling this product. Wash skin thoroughly after handling. If exposed or concerned: Get medical attention.

If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, and continue rinsing.

If eye irritation persists: get medical advice/attention.

Avoid creating dust when handling, using, or storing. Use with adequate ventilation to keep exposure below recommended exposure limits.

Wear eye protection and respiratory protection following this SDS, NIOSH guidelines, and other applicable regulations.
Dispose of contents/container in accordance with local, regional, national, or international regulations. Please refer to Section 11 for details of specific health effects of crystalline silica.

Section 3 – Composition/ Information on Ingredients

Hazardous Ingredients

Name:	Silica, Quartz, SiO ₂
CAS Number:	14808 - 60- 7
Concentration (%)	89.0-99.9% (% by weight)

Section 4 – First Aid Measures

Inhalation –If gross inhalation of silica occurs, remove the person to fresh air, perform artificial respiration as needed, and obtain medical attention as needed.

Eye – Immediately wash the eye with plenty of water for at least 15 minutes, while holding eyelid(s) open. If irritation persists, seek medical attention.

Skin – If abrasion occurs, wash with soap and water and seek medical attention if irritation persists or develops later.

Ingestion – If gastrointestinal discomfort occurs, give a large quantity of water. Never attempt to make an unconscious person drink or vomit. Seek medical attention.

Signs and Symptoms of Exposure: There are generally no signs or symptoms of exposure to crystalline silica (quartz). Often, chronic silicosis has no symptoms. The symptoms of chronic silicosis, if present, are shortness of breath, wheezing, cough and sputum production. The symptoms of acute silicosis which can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as 6 months, are the same as those associated with chronic silicosis; additionally, weight loss and fever may also occur. The symptoms of scleroderma, an autoimmune disease, include thickening and stiffness of the skin, particularly in the fingers, shortness of breath, difficulty swallowing, and joint problems.

Section 5 – Fire Fighting Measures

Extinguishing Media:	Compatible with all media; use the medium appropriate to the surrounding fire.
Unusual Fire and Explosion Habits:	None known.
Special Fire Fighting Procedures:	None known.
Hazardous Combustion Products:	None known.

Section 6 – Accidental Release Measures

Wear appropriate personal protective equipment. Ensure appropriate respirators are worn during and following clean-up or whenever airborne dust is present to ensure worker exposures remain below occupational exposure limits (Refer to Section 8). Follow respiratory protection selection guidelines as described in Section 8 of this document.

Collect the material using a method that does not produce dust such as a High-Efficiency Particulate Air (HEPA) vacuum or thoroughly wetting down the silica-containing dust before cleaning up. Place the silica-containing dust in a covered container appropriate for disposal. Dispose of the silica-containing dust according to federal, state, and local regulations.

This product is not subject to the reporting requirements of Title III of SARA, 1986, and 40 CFR 372.

Section 7 – Handling and Storage

This product is **not** to be used for abrasive blasting. Do not breathe dust, which may be created during the handling of this product. Do not rely on vision to determine whether respirable silica is present in the air, as it may be present without a visible cloud. Use good housekeeping procedures to prevent the accumulation of silica dust in the workplace. Avoid the creation of respirable dust. Avoid standing on piles of materials as they may be unstable.

Use adequate ventilation and dust collection equipment. Ensure that the dust collection system is adequate to reduce airborne dust levels to below the appropriate occupational exposure limits. If the airborne dust levels are above the appropriate occupational exposure limits, use respiratory protection during the establishment of engineering controls. Refer to Section 8 - Exposure Controls/Personal Protection for further information.

In accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200, 1915.99, 1917.28, 1918.90, 1926.59, 1928.21), state, and/or local right-to-know laws and regulations, familiarize your employees with this SDS and the information contained herein. Warn your employees, your customers and other third parties (in case of resale or distribution to others) of the potential health risks associated with the use of this product and train them in the appropriate use of personal protective equipment and engineering controls, which will reduce their risks of exposure.

See also ASTM International standard practice E 1132-06, "Standard Practice for Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica."

For safe handling and use of this product for Hydraulic Fracturing, please see the OSHA/NIOSH Hazard Alert Worker Exposure to Silica during Hydraulic Fracturing DHHS (NIOSH) Publication No. 2012-166 (2012).
http://www.osha.gov/dts/hazardalerts/hydraulic_frac_hazard_alert.pdf

Section 8 – Exposure Controls/Personal Protection

Occupational Exposure Limits (respirable fraction) in air for dust containing crystalline silica (quartz):

Standard	Exposure Limits
MSHA/OSHA PEL* (8-Hour Time-Weighted Average)	10 mg/m ³ % SiO ₂ +2
ACGIH TLV** (8-Hour Time-Weighted Average)	0.025 mg/m ³
NIOSH REL** (10-Hour Time-Weighted Average, 40-hour work week)	0.05 mg/m ³

* The OSHA/MSHA PEL for dust containing crystalline silica (quartz) is based on the silica content of the respirable dust sample. The OSHA/MSHA PEL for crystalline silica as tridymite and cristobalite is one-half the PEL for crystalline silica (quartz).

** The ACGIH and NIOSH limits are for crystalline silica (quartz), independent of the dust concentration.

The ACGIH TLV for crystalline silica as cristobalite is equal to the TLV for crystalline silica as quartz. In 2005, ACGIH withdrew the TLV for crystalline silica as tridymite. Refer to Section 10 for thermal stability information for crystalline silica (quartz).

Occupational Exposure Limits in air for inert/nuisance dust:

Standard	Respirable Dust	Total Dust
MSHA/OSHA PEL (as Inert or Nuisance Dust)	5 mg/m ³	15 mg/m ³
ACGIH TLV (as Particles Not Otherwise Specified)	3 mg/m ³	*10 mg/m ³

Note: The limits for Inert Dust are provided as guidelines. Nuisance dust is limited to particulates not known to cause systemic injury or illness.

* The TLV provided is for inhalable particles not otherwise specified.

California Inhalation Reference Exposure Limit (REL): The California chronic REL for respirable crystalline silica (quartz, cristobalite, tridymite) is 3 ug/m³. [Dated December 18, 2008] A chronic REL is an airborne level of a chemical at or below which no adverse health effects are anticipated in individuals indefinitely exposed to that level. [Dated 2/10/05]

Canadian OEL:

Canada Labour Code: 0.025 mg/m³ (respirable)

Alberta, British Columbia: 0.025 mg/m³ (respirable quartz and cristobalite)

Saskatchewan: 2 mg/m³ (respirable, amorphous: silica fume); 0.1 mg/m³ (respirable, amorphous: silica fused); 0.05 mg/m³ (respirable, cristobalite); 0.05 mg/m³ (respirable tridymite); 0.1 mg/m³ (respirable, quartz); 0.1 mg/m³ (respirable, tripoli)

Manitoba, Newfoundland, Prince Edward Island: 0.025 mg/m³ (respirable)

Ontario: 0.05 mg/m³ (respirable cristobalite, tridymite); 0.1 mg/m³ (quartz, tripoli); 0.1 mg/m³ (silica fused); 2 mg/m³ (silica fume)

Quebec: 0.05 mg/m³ (respirable, cristobalite, tridymite); 0.1 mg/m³ (quartz, tripoli)

New Brunswick: 0.1 mg/m³ (quartz); 0.05 mg/m³ (cristobalite)

Nova Scotia: 0.025 mg/m³ (quartz, cristobalite)

Yukon: 2 mg/m³ (respirable, amorphous); 300 particles/ml measured with a konimeter (quartz, and tripoli); 150 particles/ML measured with a konimeter (cristobalite and tridymite)

Northwest Territories, Nunavut: 2 mg/m³ (respirable, amorphous); 0.05 mg/m³ (respirable, cristobalite, tridymite, silica flour); 0.1 mg/m³ (respirable, fused silica, quartz, tripoli)

Austria OEL - Maximum concentration 0.15 mg/m³

Japan OEL - Japan Society of Occupational Health Respirable crystalline silica 0.03 mg/m³

Poland OEL TWA -2 mg/m³ (total inhalable dust, containing >50% free crystalline silica);
0.3 mg/mg/m³ (respirable dust, containing >50% free crystalline silica);
4.0 mg/m³ (total inhalable dust, containing 2% to 50% free crystalline silica);
1.0 mg/m³ (respirable dust, containing 2% to 50% free crystalline silica)

United Kingdom OEL – 0.1 mg/m³

Mexico – 0.1 mg/m³ (quartz, inhalable)

0.05 mg/m³ (cristobalite, inhalable)

0.05 mg/m³ (tridymite, inhalable)

0.1 mg/m³ (tripoli containing respirable quartz powder, inhalable)

(Also refer to ACGIH)

Argentina – 0.05 mg/m³ (quartz, respirable)

0.05 mg/m³ (cristobalite, respirable)

0.05 mg/m³ (tridymite, respirable)

0.1 mg/m³ (tripoli, respirable)

Engineering Controls:

Ventilation: Use local exhaust, general ventilation or natural ventilation adequate to maintain exposures below appropriate exposure limits.

Other control measures: Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) dust suppression (wetting), ventilation, process enclosure, and enclosed employee work stations.

This product is not to be used for abrasive blasting.

Respiratory Protection:

Consult with OSHA regulations, Canadian CCOHS, NIOSH recommendations and other applicable regulatory agencies to determine the appropriate respiratory protection to be worn during use of this product, and use only such recommended respiratory protection equipment. Avoid breathing dust produced during the use and handling of this product. If the workplace airborne crystalline silica concentration is unknown for a given task, conduct air monitoring to determine the appropriate level of respiratory protection to be worn. Consult with a certified industrial hygienist, your insurance risk manager or the OSHA Consultative Services group for detailed information. Ensure appropriate respirators are worn during and following the task, including clean up or whenever airborne dust is present, to ensure worker exposures remain below occupational exposure limits. Provisions should be

made for a respiratory protection training program (see 29 CFR 1910.134 – Respiratory Protection for minimum program requirements). See also ANSI standard Z88.2 (latest revision) "American National Standard for Respiratory Protection," 29 CFR 1910.134 and 1926.103, and 42 CFR 84.

Respirator Recommendations:

For respirable quartz levels that exceed, or are likely to exceed, ten times the applicable limit, which NIOSH designates as an 8 hour-TWA of 0.5 mg/m³, a NIOSH-approved 100 series particulate filter respirator must be worn.

NIOSH recommendations for respiratory protection include:

Up to 0.5 mg/m³:

(APF = 10) Any particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering face pieces) except quarter-mask respirators. The following filters may also be used: N99, R99, P99, N100, R100, P100.

Up to 1.25 mg/m³:

(APF = 25) Any powered, air-purifying respirator with a high-efficiency particulate filter.

(APF = 25) Any supplied-air respirator operated in a continuous-flow mode

Up to 2.5 mg/m³:

(APF = 50) Any air-purifying, full-face piece respirator with an N100, R100, or P100 filter.

(APF = 50) Any powered, air-purifying respirator with a tight-fitting face piece and a high-efficiency particulate filter

Up to 25 mg/m³:

(APF = 1000) Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode

Respirator use must comply with applicable MSHA or OSHA standards, which include provisions for a user training program, respirator maintenance and cleaning, respirator fit testing, and other requirements. For additional information contact NIOSH at 1-800-35-NIOSH or visit website:

<http://www.cdc.gov/niosh/npg> (search for crystalline silica).

Emergency or planned entry into unknown concentrations or IDLH conditions (50 mg/m³ for crystalline silica-quartz): Any self-contained breathing apparatus that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode or any supplied-air respirator that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus.

Escape from unknown or IDLH conditions (50 mg/m³ for crystalline silica-quartz): Any air-purifying, full-face piece respirator with a high-efficiency particulate filter or any appropriate escape-type, self-contained breathing apparatus.

Gloves:

Recommended in situations where abrasion from sand may occur.

Eye/Face:

Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessively (visible) dusty conditions are present or are anticipated. There is a potential for severe eye irritation for those wearing contact lenses.

General Hygiene Considerations:

There are no known hazards associated with this material when used as recommended. Following the guidelines in this SDS is recognized as good industrial hygiene practice. Avoid breathing dust. Wash dust-exposed skin with soap and water before eating, drinking, smoking, and using toilet facilities.

Section 9 – Physical and Chemical Properties

Appearance:	Granular Solid, Light Buff to White Sand
Odor:	None
Odor threshold:	None
pH:	Not Applicable
Boiling Point or Range, °F:	2230°C (4046°F) for Quartz
Melting Point or Range, °F:	1710°C (3110°F) for Quartz
Flashpoint:	None
Evaporation Rate	Not Applicable
Flammability	Non-combustible solid
Upper/Lower Explosive Limit:	Non-combustible solid
Vapor Pressure	Not Applicable
Vapor Density:	Not Applicable
Specific Gravity:	2.65 (Quartz)
Solubility In Water:	Insoluble
Partition coefficient: n-octanol/water	Not applicable
Auto ignition Temperature:	None
Viscosity	Not applicable

Section 10 – Stability and Reactivity

Reactivity	Reactive with strong oxidizing agents
Chemical Stability:	Stable
Thermal Stability:	If crystalline silica (quartz) is heated to more than 870°C (1598°F), it can change to a form of crystalline silica known as tridymite, and if crystalline silica (quartz) is heated to more than 1470°C (2678°F), it can change to a form of crystalline silica known as cristobalite.
Incompatibility:	Strong oxidizing agents, such as fluorine, chlorine trifluoride, hydrogen fluoride, oxygen difluoride, hydrogen peroxide, etc.; acetylene and ammonia.
Hazardous Decomposition Products:	Silica will dissolve in hydrofluoric acid and produce a corrosive gas – silicon tetrafluoride.
Hazardous Polymerization:	Not known to polymerize.

Section 11 – Toxicological Information

CAUTION: Crystalline silica exists in several forms, the most common of which is quartz. Crystalline silica as tridymite and cristobalite are more fibrogenic than crystalline silica as quartz.

Potential Health Effects

Primary routes(s) of exposure: Inhalation Skin Ingestion

Inhalation:

Acute Effects: One form of silicosis, acute silicosis, can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as 6 months. The symptoms of acute silicosis include (but are not limited to) progressive shortness of breath, fever, cough, and weight loss. Acute silicosis is fatal.

Chronic Effects: The adverse health effects – lung disease, silicosis, cancer, autoimmune disease, tuberculosis, and nephrotoxicity -- are chronic effects.

Eye Contact: Crystalline silica (quartz) may cause abrasion of the cornea.

Skin Contact: May cause abrasion to skin.

Ingestion: No adverse effects expected for incidental ingestion. Ingestion of large amounts may cause gastrointestinal tract irritation.

Medical Conditions Generally Aggravated by Exposure: The condition of individuals with lung disease (e.g., bronchitis, emphysema, chronic obstructive pulmonary disease) can be aggravated by exposure.

A. SILICOSIS

The major concern is silicosis (lung disease), 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 is the most common form of silicosis and can occur after many years of exposure to levels above the occupational exposure limits for 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 (cor pulmonale) secondary to the lung disease.

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 the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and the 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 is "*sufficient evidence* in humans for the carcinogenicity of crystalline silica in the form of quartz or cristobalite", there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz dust" and that there is "*limited evidence* in experimental animals for the carcinogenicity of tridymite dust and cristobalite dust." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite dust is *carcinogenic to humans (Group 1)*." The IARC evaluation noted that not all industrial circumstances studied evidenced carcinogenicity. The monograph also stated that "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 100C, "Silica Dust, Crystalline, in the Form of Quartz or Cristobalite" (2012).

NTP - In its Eleventh Annual Report on Carcinogens, concluded that respirable crystalline silica is known to be a human carcinogen, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to respirable crystalline silica and increased lung cancer rates in workers exposed to crystalline silica dust.

OSHA - Crystalline silica is not on the OSHA carcinogen list.

There have been many articles published on the carcinogenicity of crystalline silica, which the reader should consult for additional information; the following are examples of recently published articles: (1) "Dose-Response Meta-Analysis of Silica and Lung Cancer", *Cancer Causes Control*, (20):925-33 (2009); (2) "Occupational Silica Exposure and Lung Cancer Risk: A Review of Epidemiological Studies 1996-2005", *Ann Oncol*, (17) 1039-50 (2006); (3) "Lung

Cancer Among Industrial Sand Workers Exposed to Crystalline Silica", *Am J Epidemiol*, (153) 695-703 (2001); (4) "Crystalline Silica and The Risk of Lung Cancer in The Potteries", *Occup Environ Med*, (55) 779-785 (1998); (5) "Is Silicosis Required for Silica-Associated Lung Cancer?", *American Journal of Industrial Medicine*, (37) 252- 259 (2000); (6) " Silica, Silicosis, and Lung Cancer: A Risk Assessment", *American Journal of Industrial Medicine*, (38) 8-18 (2000); (7) "Silica, Silicosis, and Lung Cancer: A Response to a Recent Working Group Report", *Journal of Occupational and Environmental Medicine*, (42) 704-720 (2000).

C. AUTOIMMUNE DISEASES

There is evidence that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders, -- scleroderma, systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. For a review of the subject, the following may be consulted: (1) "Antinuclear Antibody and Rheumatoid Factor in Silica-Exposed Workers", *Arh Hig Rada Toksikol*, (60) 185-90 (2009); (2) "Occupational Exposure to Crystalline Silica and Autoimmune Disease", *Environmental Health Perspectives*, (107) Supplement 5, 793-802 (1999); (3) "Occupational Scleroderma", *Current Opinion in Rheumatology*, (11) 490-494 (1999); (4) "Connective Tissue Disease and Silicosis", *Am J Ind Med*, (35), 375-381 (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: (1) "Tuberculosis and Silicosis: Epidemiology, Diagnosis and Chemoprophylaxis", *J Bras Pneumol*, (34) 959-66 (2008); (2) *Occupational Lung Disorders*, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994); (3) "Risk of Pulmonary Tuberculosis Relative to Silicosis and Exposure to Silica Dust in South African Gold Miners," *Occup Environ Med*, (55) 496-502 (1998); (4) "Occupational Risk Factors for Developing Tuberculosis", *Am J Ind Med*, (30) 148-154 (1996).

E. KIDNEY DISEASE

There is evidence that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis is associated with the increased incidence of kidney diseases, including end stage renal disease. For additional information on the subject, the following may be consulted: (1) "Mortality from Lung and Kidney Disease in a Cohort of North American Industrial Sand Workers: An Update", *Ann Occup Hyg*, (49) 367-73 (2005); (2) "Kidney Disease and Silicosis", *Nephron*, (85) 14-19 (2000); (3) "End Stage Renal Disease Among Ceramic Workers Exposed to Silica", *Occup Environ Med*, (56) 559-561 (1999); (4) "Kidney Disease and Arthritis in a Cohort Study of Workers Exposed to Silica", *Epidemiology*, (12) 405-412 (2001).

F. NON-MALIGNANT RESPIRATORY DISEASES

NIOSH has cited the results of studies that report an association between dusts found in various mining operations and non-malignant respiratory disease, particularly among smokers, including bronchitis, emphysema, and small airways disease. *NIOSH Hazard Review – Health Effects of Occupational Exposure to Respirable Crystalline Silica*, published in April 2002, available from NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226, or at <http://www.cdc.gov/niosh/02-129A.html>.

Section 12 – Ecological Information

Crystalline silica is not known to be ecotoxic.

Section 13 – Disposal Considerations

General: Crystalline silica may be landfilled. Material should be placed in covered containers to minimize generation of airborne dust.

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.

The above information applies to Select Sands Corp silica sand only as sold. The product may be contaminated during use and it is the responsibility of the user to assess the appropriate disposal method in this situation.

Section 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, and Transportation of Dangerous Goods

Regulations in the European Union, Canada, Argentina, Republic of Uzbekistan and Japan.
Consult applicable international, national, state, provincial or local laws.

Section 15 – Regulatory Information

OTHER US REGULATORY INFORMATION:

OSHA: Crystalline Silica is not listed as a carcinogen.

SARA Title III: This product is not subject to the reporting requirements of Title III of SARA, 1986

TSCA: Crystalline silica (quartz) appears on the EPA TSCA inventory 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 §302.4

EPCRA (Emergency Planning and Community Right to Know Act): Crystalline silica (quartz) is not an extremely hazardous substance under regulations of the Emergency Planning and Community Right to Know Act, 40 CFR Part 355, Appendices A and B and is not a toxic chemical subject to the requirements of Section 313.

Clean Air Act: Crystalline silica (quartz) mined and processed by Select Sands Corp was 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). (The FDA standard primarily applies to products containing silica used in the coatings of food contact surfaces).

California Proposition 65: Respirable crystalline silica (quartz) is classified as a substance known to the state of California to be a carcinogen.

Massachusetts Toxic Use Reduction Act: Respirable crystalline silica is considered toxic per the Massachusetts Toxic Use Reduction Act.

Pennsylvania Worker and Community Right to Know Act: Quartz is considered hazardous for purposes of the Act, but it is not a special hazardous substance or an environmental hazardous substance.

CANADA

Canadian Regulations: All information required by Controlled Products Regulation (CPR) is contained in this SDS. Product classified according to the hazard criteria of CPR.

National Pollutant Release Inventory (NPRI), CEPA subsection 16(1): None required.

Domestic Substances List: Select Sands Corp's product, a naturally occurring substance, is on the Canadian DSL.

WHMIS Classification: D-2A and D-2B

OTHER

EINECS No.: 231-545-4 (for silica)

EEC Label (Risk/Safety Phrases): R 48/20, R 40/20, S22, S38 (for silica)

IARC: Silica dust, crystalline, in the form of quartz or cristobalite is classified in IARC Group 1. Silica, amorphous is classified in IARC Group 3.

NTP: Respirable crystalline silica is classified as a known carcinogen.

IARC: Crystalline silica inhaled in the form of quartz or cristobalite dust is carcinogenic to humans (Group 1).

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.

Section 16 – Other Information

Definitions of Acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
ANSI: American National Standards Institute
APF: Assigned Protection Factor
California REL: California Inhalation Reference Exposure Limit
CAS: Chemical Abstracts Service
CCOHS: Canadian Centre for Occupational Health and Safety
CEPA: Canadian Environmental Protection Agency
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act
CFR: US Code of Federal Regulations
CPR: Controlled Products Regulation
DHHS: Department of Health and Human Services
DSL: Domestic Substances List
EEC: European Economic Community Guidelines
EINECS: European Inventory of Existing Commercial chemical Substances
EPA: Environmental Protection Agency
EPCRA: Emergency Planning and Community Right to Know Act
FDA: Food and Drug Administration
GHS: Globally Harmonized System
HEPA: High-Efficiency Particulate Air
IARC: International Agency for Research on Cancer
IDLH: Immediately Dangerous to Life and Health
MSHA: Mine Safety and Health Administration
NIOSH: National Institute for Occupational Safety and Health, US Department of Health and Human Services
NIOSH REL: NIOSH Recommended Exposure Limit
NPRI: National Pollutant Release Inventory
NTP: National Toxicology Program
OEL: Occupational Exposure Limit
OSHA: Occupational Safety and Health Administration, US Department of Labor
PEL: Permissible Exposure Limit
PMF: Progressive Massive Fibrosis
RCRA: Resource Conservation and Recovery Act
SARA Title III: Title III of the Superfund Amendments and Reauthorization Act, 1986
SDS: Safety Data Sheet
STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act
TWA: Time-Weighted Average
WHMIS: Workplace Hazardous Materials Information System

User's Responsibility: The OSHA Hazard Communication Standard 29 CFR 1910.1200 requires that this SDS be made available to your employees who handle or may be exposed to this product. Educate and train your employees regarding applicable precautions. Instruct your employees to handle this product properly.

Disclaimer: The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for one's own particular use. Since the actual use of the product described herein is beyond our control, Select Sands Corporation assumes no liability arising out of the use of the product by others. Appropriate warnings and safe handling procedures should be provided to handlers and users.

An electronic version of this SDS is available at www.selectsandscorp.com. More information on the effects of crystalline silica exposure may be obtained from OSHA (phone number: 1-800-321-OSHA; website: <http://www.osha.gov>) or from NIOSH (phone number: 1-800-35-NIOSH; website: <http://www.cdc.gov/niosh>).