Safety Data Sheet

GHS – United States

Section 1. Product and Company Identification

Product Names Standard Sand & Silica, Co. Sand

Synonym Silica Sand, Quartz Sand

Supplier/ Manufacturer Standard Sand & Silica, Co.
1850 Hwy. 17-92 N.
Davenport, FL 33837
863-422-7100 phone
863-421-7349 fax

Emergency Phone Number 863-557-9411

Product Use Industrial , Construction and Agriculture

Restrictions on use Not applicable

Section 2. Hazards Identification

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture **OSHA - CARCINOGENICITY** (Inhalation) - Category 1A
(See section 16 for OSHA, IARC, and NTP carcinogen listings)
OSHA - SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) (respiratory tract) (inhalation) - Category 1

Signal Word **Danger**

Hazard Statement Standard Sand is a naturally occurring mineral and contains crystalline silica levels of 98-100%.

• **CARCINOGENICITY:** This product contains crystalline silica. Repeated, prolonged inhalation of dust may cause delayed lung injury which may result in silicosis or pneumoconiosis. The International Agency For Research On Cancer in its publication, "IARC Monographs On the Evaluation Of The Carcinogenic Risk To Humans – Silica, Some Silicates, Coal Dust and Para-aramid Fibrils" - Volume 68, 1997, has concluded that there is sufficient evidence of the carcinogenicity of crystalline silica in humans, and has, therefore, classified crystalline silica in, Group 1, Carcinogenic to Humans. The National Toxicology Program's ("NTP's") Ninth Annual Report on Carcinogens 2000, lists crystalline silica (respirable) as a substance which is known to be a human carcinogen. In humans, a number of studies have found an association between lung cancer and exposure to dust containing respirable crystalline silica. In many of these studies, though not all, lung cancer risks were elevated and could not be explained by confounding factors such as cigarette smoking or arsenic or random inhalation. While the IARC working group concluded there was sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or crystobalite, it noted that carcinogenicity in humans was not detected in all circumstances studied.
ACGIH states that it is a suspected cause of cancer. Other forms of respirable crystalline silica (e.g. tridymite and cristobalite) may also be present or formed under certain industrial processes.

GHS label elements / Hazard pictograms

Health Hazard
(carcinogen)

Irritant
(skin,eye & respiratory tract)

Precautionary Statements

Avoid generating dust. Do not breathe dust. Do not eat drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/ face protection. In case of inadequate ventilation, wear respiratory protection. If exposed or concerned, get medical advice/attention.

Storage Warning

Restrict of control access to stockpile areas. Engulfment hazard: To prevent burial or suffocation, do not Enter a confined space, such as a silo, bulk truck, or other storage container or vessel that stores or Contains sand with an effective procedure for assuring safety.

Unclassified Hazards

None Known

% of ingredients with unknown acute toxicity

None Known

Section 3. Composition / Information on Ingredients

Substances:

Chemical	Formula	CAS & ICSC Numbers		Percentage	
Quartz (Crystalline Silica)	SiO^2	CAS # 14808-60-7	ICSC # 0808	99.0-100.0%	

Section 4. First-Aid Measures

Description of first-aid Measures:	
First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical attention.
First-aid measures after inhalation	Inhaling dust may cause discomfort in the chest, shortness of breath and coughing. Prolonged inhalation may cause chronic health effects. Prolonged or repeated inhalation of respirable crystalline silica liberated from this product can cause silicosis and may cause cancer. In cases of gross inhalation remove victim to fresh air. If breathing has stopped, perform artificial respiration. If breathing is difficult, have qualified personnel administer oxygen. Get prompt medical attention.
First-aid measures after skin contact	Remove contaminated clothing. Wash affected area with soap and warm water. Obtain medical attention if irritation persists.
First-aid measures after eye contact	Flush the eyes immediately with large amounts of running water, lifting the upper and lower lids occasionally. Remove contact lenses if present and easy to do. If irritation persists or for imbedded foreign body, get immediate medical attention.
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Unlikely to be toxic by ingestion. If discomfort persists, seek medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed:	
Symptoms/injuries	Causes damage to organs through prolonged or repeated exposure (inhalation).
Symptoms/injuries after inhalation	May cause cancer by inhalation. Dust from this product may cause irritation to the respiratory tract.
Symptoms/injuries after skin contact	Prolonged contact with large amounts of dust may cause mechanical irritation.
Symptoms/injuries after eye contact	Prolonged contact with large amounts of dust may cause mechanical irritation.
Symptoms/injuries after ingestion	If a large quantity has been ingested: intestinal blockage. Gastrointestinal irritation.
Chronic symptoms	Repeated or prolonged exposure to respirable crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

If exposed or concerned, get medical advice and attention.

Section 5. Fire-Fighting Measures

National Fire Protection Association (U.S.A.)

Suitable extinguishing media	**This product is not flammable or combustible and is compatible with all extinguishing media.** **Use extinguishing media appropriate for surrounding fire.**
Unsuitable extinguishing media	No restrictions on extinguishing media for this material.
Special hazards arising from the substance or mixture	This material is not flammable and does not support fire. The paper bags and bulk bags containing the material are flammable. This product is not a combustible dust Dry powders may accumulate static charge in handling, which can be a source of ignition for flammable atmospheres.
Hazardous thermal decomposition products	This material does not contain hazardous decomposition products.
Special protective actions for fire-fighters	No special actions are necessary.
General fire hazards	No unusual fire or explosion hazards noted.
Specific Methods	Contact with powerful oxidizing agents may cause fire and/or explosions,

Section 6. Accidental Release Measures

Use of personal precautions

Avoid inhalation of dry silica dust.
Wear appropriate protective equipment when cleaning up dry silica sand dust.

Emergency procedures

There are no emergency procedures required for this material.

Methods and Materials For containment

Silica sand waste is not reactive, flammable or biodegradable. Use conventional means; e.g. sweeping, vacuum, etc.

Clean up procedures

Spilled material, where dust is generated, may overexpose Cleanup personnel to respirable crystalline silica- containing dust. Provide appropriate exhaust ventilation at places where dust is formed. Do not breath dust. Avoid prolonged exposure.
If uncontaminated, collect using dustless method (HEPA vacuum or wet method)and place in appropriate container for use. Wear appropriate respiratory protection to protect against respirable

crystalline silica dust. If contaminated, use appropriate method for the nature of contamination, and consider possible toxic or fire hazards associated with the contaminating substances. Collect for appropriate disposal.

Environmental Precautions

Avoid discharge of fine particulate matter into drains or water Courses.

Section 7. Handling & Storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Do not rely on your sight to determine if dust is in the air. Use normal precautions against bag breakage or spills of bulk material. Use good housekeeping in storage and use areas to prevent accumulation of dust in work area. Provide adequate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. Wear appropriate personal protective equipment and observe good industrial hygiene practices.

To reduce the risk of developing silicosis, lung cancer and other adverse health effects, the ACGIH recommends use of every means available to keep exposures below the recommended TLV. Refer to the most recent government and local regulations when selecting a respirator. Maintain, clean and fit test respirators in accordance with applicable regulations. Maintain and test ventilation and dust collection equipment. Launder clothing that has become dusty. Empty bags and containers retain silica residue and must be Handled in accordance with the provisions of this Safety Data Sheet. Warn and train employees in accordance with local, state and Federal regulations.

Dust can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electric spark (ignition source) which can ignite flammable liquids and atmospheres. Provide adequate precautions when adding this

product to flammable and combustible mixtures like paints and coatings, such as electrical grounding and bonding, inert atmospheres or non- sparking tools. See also ASTM Standard Practice E1132-99a, “Standard Practice for Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica.

Paper bags weigh 50 lbs. Use proper lifting techniques to avoid physical injury. Bulk bags weigh 2000 lbs. Use proper equipment to lift.

Recommendations on the Conditions for safe storage

No special storage considerations, but keep in a dry location. Avoid Dust formation or accumulation.

Section 8. Exposure Controls / Personal Protection

Chemical Name	CAS Numbers	Occupational Exposure Limits
Quartz,(Crystalline Silica) SiO^2	CAS#14808-60-7	ACGIH TLV: TWA 0.025 mg/ m^3 (respirable) OSHA PEL: .05 mg/m^3, calculated as an 8-hr TWA (respirable) CAL OSHA PEL: .05 mg/ m3, calculated an 8-hr TWA (respirable) NIOSH REL: 0.05 mg/m3 as determined by a full shift sample up to 10-hour working day, 40 hours per week.

Appropriate engineering Controls

Silica sand in moist form poses no health risk and no inhalation risk. In the event that dust is generated, use local exhaust as required to maintain exposures as far as possible below applicable occupational exposure limits. Control of exposure to dust must be accomplished as far as feasible by accepted engineering control measures (e.g., enclosure or confinement of the operation, general or local exhaust ventilation, and substitution of less toxic materials.

Recommendations for personal protective measures

Local Exhaust: When working with silica sand products, use sufficient local exhaust to reduce the level of respirable dust to the applicable standards set forth in Section III. See ACGIH "Industrial Ventilation, A Manual of Recommended Practice," latest edition.

Respiratory Protection: Dust is generated when working with dry silica sand. To minimize exposure to dust and/or crystalline silica, the mixing of dry sand products should be conducted with sufficient ventilation.
Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate exposure limits should be reduced by feasible engineering controls, including (but not limited to) wet suppression, ventilation, and process enclosure. When such controls are not feasible, NIOSH/MSHA approved respirators must be worn in accordance with a respiratory protection program which meets OSHA/MSHA requirements as set forth at 29 CFR1910.134 and ANSI Z88.2-2015"Practices for Respiratory Protection".

Eye Protection: Safety glasses with side shields that are compliant with ANSI Z787.1-1989

Skin Protection: Use gloves and/or protective clothing if abrasion or allergic reactions are experienced.

Work/Hygienic Practices: Avoid creating or breathing dust Always observe good personal hygiene measures, such as washing after handling material and before eating, drinking and/or smoking. Routinely wash work clothes and protective equipment to remove containments.

Section 9. Physical & Chemical Properties

Physical State	Granular
Appearance	Buff color in dry form
Odor	Earthy odor when wet
Odor Threshold	Not Applicable
pH	7.0
Solubility in Water	None
Melting Point	1710°C
Freezing Point	< 0 °C (<32°F)
Specific Gravity / Relative Density	2.65 g/cc
Evaporation Rate	No data available
Flash Point	Not Applicable
Auto-Ignition Temperature	Not Applicable
Decomposition Temperature	Not Applicable
Flammability	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Explosive Limits	Not Applicable
Viscosity	Not Applicable
Partition Coefficient: n-octanol/water	Not Applicable
Initial Boiling Point & Boiling Range	Not Applicable

Section 10. Stability & Reactivity

Reactivity Hazardous reactions will not occur under normal conditions.

Chemical stability Stable at standard temperature and pressure.

Possibility of hazardous reactions Hazardous polymerization will not occur.

Conditions to avoid None known.

Incompatible materials Powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, etc.

Hazardous decomposition products Silica will dissolve in hydrofluoric acid, producing a corrosive gas, silicon tetrafluoride.

Section 11. Toxicological Information

Routes of Exposure	Inhalation of silica sand dust, Ingestion
Acute Effects	
Inhalation	Aspiration of high concentrations of dry silica dust may cause mechanical irritation and discomfort. Long term exposure may cause chronic effects. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring.
Eye Contact	Not a primary eye irritant. May cause mechanical irritation.
Skin Contact/Irritation	Not a skin irritant. Not absorbed through skin.
Sensitization	Not a sensitizer

Ingestion	Ingestion may cause gastrointestinal irritation

Section 11. Toxicological Information

Chronic Effects	
Signs and Systems of Exposure	Exposure to dust may cause mucous membrane and respiratory irritation, cough, sore throat, nasal congestion, sneezing and shortness of breath.
Mutagenic Effects	None Known
Teratogenic Effects	None Known
Developmental Toxicity	None Known
Effects of Silicosis	**Symptoms of Silicosis**
Bronchitis/Chronic Obstructive Pulmonary Disorder. Tuberculosis – Silicosis makes an individual more susceptible to TB. Scleroderma – a disease affecting skin, blood vessels, joints and skeletal muscles. Possible renal disease.	Shortness of breath, possible fever, fatigue loss of appetite chest pain, dry cough, respiratory failure which may eventually lead to death. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop mycobacterial infections and fungal infections Inhalation of air with a very high concertation of respirable silica dust can cause the most serious forms of silicosis in a matter of months or a few years. Some epidemiological studies have concluded that there is a significant risk of developing silicosis even at airborne exposure levels that are equal to the NIOSH REL and ACGIH TLV
Remarks	
Carcinogenicity	The International Agency for Research on Cancer has determined that crystalline silica is carcinogenic to humans (Group 1). Refer to IRAC Monograph 100C (2011). The National Toxicology Program classifies respirable crystalline silica as " known to be a human carcinogen" (12th Report on Carcinogens, 2011). The ACGIH classifies crystalline silica, quartz as a suspected human carcinogen(A2)

Other Data with Possible Relevance to Human Health	There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of disease endpoints such as scleroderma, rheumatoid arthritis, systemic lupus, erythematosus, sarcoidosis, chronic bronchitis, chronic obstructive pulmonary disease, emphysema, chronic kidney disease and end stage renal disease.
Numerical Measures of toxicity	None Known

OSHA, IARC, and NTP Carcinogen Classifications					
Chemical with Carcinogen Potential		**CAS#**	**OSHA**	**IARC**	**NTP**
Quartz, (Crystalline Silica)	SiO2	CAS # 14808-60-7	Yes	Yes - Group 1	Yes

Section 12. Ecological Information (non-mandatory)

Ecotoxicity

Not expected to be harmful to aquatic organisms. Discharging sand dust and fines into waters may increase total suspended particulate levels that can be harmful to certain aquatic organisms

Chemical oxygen demand(COD) None Known

Products of Biodegradation None Known

Toxicity of the products of Biodegradation None Known

Bioaccumulation Potential None Known

Potential to move from soil to groundwater None Known

Other adverse effects None Known

13. Disposal Considerations

Personal Protection

Refer to Section 8: "Recommendations for Personal Protective Measures" when disposing of ceramic waste.

Appropriate disposal containers

Standard waste disposal containers – no specials requirements.

Appropriate disposal methods

Disposal of this product should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. In most cases, this is normal waste disposal. The generation of waste should be avoided or minimized. Dispose of non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Physical and chemical properties that may affect disposal

Dry silica dust should be placed in a sealed container or in a manner that reduces or eliminates the release of the product. Packaging should be recycled before disposal.

Sewage disposal

Do not dispose of into sinks or toilets. They will clog. Never dispose of this product into a sewer system.

Special precautions for landfills or incineration activities

There are no special precautions for disposal in a landfill. This product is non-combustible and is not suitable for incineration.

Section 14. Transportation Information

Regulatory Information	UN Number	UN Proper Shipping Name	Transport Hazard Class	Packing Group Number	Bulk Transport Guidance	Special Precautions
DOT Classification	Not regulated	-	-	-	-	-
TDG Classification	Not regulated	-	-	-	-	-
ADR/RID Class	Not regulated	-	-	-	-	-
IMDG Class	Not regulated	-	-	-	-	-
IATA-DGR Class	Not regulated	-	-	-	-	-

Section 15. Regulatory Information

RCRA	Crystalline Silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or it's regulations 40 CFR 261et seq.
CERCLA Section 103 Reportable Quantity	None
Clean Air Act	Crystalline silica (quartz) mined and processed by Standard Sand & Silica, Co. 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

NTP	Respirable crystalline silica (quartz) is classified to be Known as a Human Carcinogen.
OSHA Hazard Communication Evaluation	Crystalline silica (quartz) meets criteria for hazardous Material, as defined by 29 CFR 1910.1200
California Inhalation Reference Exposure Level (REL)	California established a chronic REL ug for silica (Crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse 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 Us 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	All the components of this product are listed on the Canadian Domestic Substances List or exempt from Notification requirements. WHMIS Classification: Class D, Division 2, Subdivision A (Very Toxic Material Causing other Toxic Effects.
International Agency for Research on Cancer	Group 1
Toxic Substances Control Act (TSCA)	This chemical is listed on the TSCA Inventory, with no regulatory (SNUR or other) requirements.

National, State, provincial or local emergency planning, community right to know and other laws, regulations or ordnances may be applicable - consult applicable laws and all changes since the date of this Safety Data Sheet.

Section 16. Other Information

Definitions

ASTM means American Society of Testing and Materials
OSHA means Occupational Safety & Health Administration
IARC means International Agency for Research on Cancer
NTP means National Toxicology Program
HCS means Hazard Communication Standard
CAS means Chemical Abstract Service
ACGIH means American Conference of Governmental Industrial Hygienists
CAL-OSHA means California OSHA, most CAL-OSHA standards defer to the federal OSHA standards
OSHA PEL means OSHA Permissible Exposure Limit
OSHA STEL means short exposure for a duration of 15 minutes, that cannot be repeated more than 4 times per day, with at least 60 minutes between exposure periods
TWA means Time Weighted Average (average exposure on the basis of an 8h/day, 40h/week work schedule)
TLV means Threshold Limit Value - American Conference of Governmental Industrial Hygienists (ACGIH)

Three types of TLVs for chemical substances as defined by the ACGIH are:

1. **TLV-TWA** - Time weighted average - average exposure on the basis of an 8h/day, 40h/week work schedule.
2. **TLV-STEL** - Short-term exposure limit - spot exposure for a duration of 15 minutes, that cannot be repeated more than 4 times per day, with at least 60 minutes between exposure periods.
3. **TLV-C** - Ceiling limit - absolute exposure limit that should not be exceeded at any time.
4. **NFPA Hazard Rating**: Health: 1 Fire: 0 Reactivity: 0

This SDS is in compliance with The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – June 1, 2015. This data sheet is subject to change without notice.

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