SAFETY DATA SHEET

Effective Date: 5/1/2024
Replaces: 1/4/2022

Industrial Sand

1. Identification

Product name:
Industrial Sand - Delta Pearl and Tailored Sand Tradenames

Other means of identification/Synonyms/Common Names:
Construction Aggregate

Recommended use:
Industrial sand is used as a construction material.
INDUSTRIAL SAND MUST NOT BE USED AS AN ABRASIVE BLASTING AGENT.

Recommended restrictions:
None Known

Manufacturer/Contact info:
Gulf Coast Sand, LLC
105 Street A
Picayune, MS 39466

General Phone Number:
1-601-798-7821

Emergency Phone Number:
1-601-798-7821

Website:
www.gulfcoastsand.com

2. Hazard(s) Identification

Physical hazards:
Not Classified

Health hazards:
Carcinogenicity-Category 1A
Specific target organ toxicity, repeated exposure- Category 2



Signal word:

Danger

Hazard statement:
May Cause Cancer (Inhalation).
Causes damage to organs (lungs, respiratory system) through prolonged or repeated exposure (inhalation)

Precautionary statement:

Prevention

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required. Wear protective gloves, protective clothing, eye protection, and face protection.
- Wash hands thoroughly after handling.
- Do not breathe dust.

Response

- If exposed or concerned get medical advice/attention.

Disposal

- Dispose of contents/container in accordance with all local, regional, national, and international regulations.

Supplemental information:

Respirable Crystalline Silica (RCS) may cause cancer. Industrial Sand is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). Industrial sand may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain respirable crystalline silica (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of respirable crystalline silica (quartz) may cause lung injury (silicosis) and cancer according to IARC, NTP; ACGIH states that it is a suspected cause of cancer. Other forms of RCS (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

3. Composition/information on ingredients

Chemical name	CAS number	%
Silicon Dioxide (Quartz)	14808-60-7	87 – 99.9%

4. First-aid measures

Inhalation:

Remove to fresh air. Dust in the throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or if breathing is difficult.

Eyes:

Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from eye(s). Contact a physician if irritation persists or later develops.

Skin:

Wash affected areas thoroughly with mild soap and fresh water. Contact a physician if irritation persists.

Ingestion:

If person is conscious do not induce vomiting. Give a large quantity of water and get medical attention. Never attempt to make an unconscious person drink.

Most important symptoms/effects, acute and delayed:

Dust may irritate the eyes, skin, and respiratory tract. Breathing respirable crystalline silica-containing dust for prolonged periods in the workplace can cause lung damage and a lung disease called silicosis. Symptoms of silicosis may include (but are not limited to) shortness of breath, difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure.

Indication of immediate medical attention and special treatment needed:

Not all individuals with silicosis will exhibit symptoms of the disease. However, silicosis can be progressive and symptoms can appear even years after exposures have ceased. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

5. Fire-fighting measures

Suitable extinguishing media:

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media:

None known.

Specific hazards arising from the chemical:

Contact with powerful oxidizing agents may cause fire and/or explosions (see section 10 of SDS).

Special protective equipment and precautions for firefighters:

Use protective equipment appropriate for surrounding materials.

Fire-fighting equipment/instructions:
No unusual fire or explosion hazards noted. Not a combustible dust.

Specific methods:
The presence of this material in a fire does not hinder the use of any standard extinguishing medium. Use extinguishing medium for surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Persons involved in cleanup processes should first observe precautions (as appropriate) identified in Section 8 of this SDS.

Environmental precautions:
Prevent product from entering into sewers or drainage systems where it can harden and clog flow.

Methods and materials for containment and cleaning up:
Spilled material, where dust is generated, may overexpose cleanup personnel to respirable crystalline silica-containing dust. Do not dry sweep or use compressed air for clean-up. Wetting of spilled material and/or use of respiratory protective equipment may be necessary. See Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling:

INDUSTRIAL SAND MUST NOT BE USED AS AN ABRASIVE BLASTING AGENT.

Do not breathe dust. Respirable crystalline silica-containing dust may be generated during processing, handling, and storage. *Use of this product may generate elevated levels of airborne crystalline silica dust that may not be visible to the unaided eye.* Use normal precautions against bag breakage or spills of bulk materials. Use proper work practices and adequate ventilation with dust collection to maintain airborne levels of respirable crystalline silica below applicable permissible exposure limits. If airborne levels of respirable crystalline silica cannot be maintained below applicable permissible exposure limits, wear respiratory protection and protective clothing when handling this product. Use personal protection and controls identified in Section 8 of this SDS as appropriate.

Use good housekeeping practices in storage and use areas to prevent accumulation of dust in work areas.

Conditions for safe storage, including any incompatibilities:
Do not store near food, beverages, or smoking materials.

8. Exposure controls/personal protection

Legend:
NE = Not Established; PEL = Permissible Exposure Limit; TLV = Threshold Limit Value; REL = Recommended Exposure Limit; OSHA = Occupational Safety and Health Administration; MSHA = Mine Safety and Health Administration; NIOSH = National Institute for Occupational Safety and Health; ACGIH = American Conference of Governmental Industrial Hygienists

Component	OSHA/MSHA	ACGIH TLV	NIOSH REL
Respirable Crystalline Silica (quartz) Respirable Tridymite and Cristobalite (other forms of crystalline silica)	0.05 mg/m3 (PEL) 0.025 mg/m3 Action Level	0.025 mg/m3	0.05 mg/m3

Exposure Guidelines:
Total dust containing silica, respirable silica-containing dust and respirable crystalline silica (quartz) levels should be monitored regularly to determine worker exposure levels. Exposure levels in excess of allowable exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee workstations.

Engineering Controls:
Activities that generate dust require the use of general ventilation, local exhaust and/or wet suppression methods to maintain exposures below allowable exposure limits.

Eye Protection:
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. Follow OSHA's regulations in 29 CFR 1910.133.

Skin Protection (Protective Gloves/Clothing):
Use gloves to provide hand protection from abrasion. In dusty conditions, use long sleeve shirts. Clean exposed skin with soap and water and wash work clothes after each use.

Respiratory Protection:
All respirators must be NIOSH-approved for the exposure levels present. (See NIOSH Respirator Selection Guide). The need for respiratory protection should be evaluated by a qualified safety and health professional. Activities that generate dust require the use of an appropriate dust respirator where dust levels exceed or are likely to exceed allowable exposure limits. For respirable silica-containing dust levels that exceed or are likely to exceed an 8-hour time-weighted average (TWA) of 0.25 mg/m^3, a high efficiency particulate filter respirator must be worn at a minimum; however, if respirable silica-containing dust levels exceed or are likely to exceed an 8-hour TWA of 1.25 mg/m^3 an air-purifying, full-face respirator or equivalent is required. Respirator use must comply with applicable MSHA (ASTM F3387 - 19) or OSHA (29 CFR 1910.134) standards, which include provisions for a user training program, respirator inspection, repair and cleaning, respirator fit testing, medical surveillance, and other requirements.

9. Physical and chemical properties

Appearance:
White to tan, granular

Odor: No odor.	**PH:** Not applicable	**Decomposition temperature:** Not applicable
Melting point/freezing point: Melting – 3110 °F (1710 °C)	**Initial boiling point and boiling range:** 4046 °F (2230 °C)	**Flash point:** Non-combustible
Evaporation rate: Not applicable	**Flammability:** Not applicable	**Upper/lower flammability or explosive limits:** Not applicable
Vapor pressure: Not applicable	**Relative density:** Not applicable	**Solubility:** **0**
Partition coefficient: n-octanol/water. Not applicable	**Autoignition temperature:** Not applicable	**Specific Gravity (H2O = 1):** 2.65

10. Stability and reactivity

Reactivity:
Not reactive under normal use.

Chemical stability:
Stable under normal temperatures and pressures.

Possibility of hazardous reactions:
None under normal use.

Conditions to avoid (e.g., static discharge, shock or vibration):
Contact with incompatible materials should be avoided (see below). See Sections 5 and 7 for additional information.

Incompatible materials:
Silica ignites on contact with fluorine and is incompatible with acids, aluminum, ammonium salts and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silica dissolves readily in hydrofluoric acid producing a corrosive gas – silicon tetrafluoride.

Hazardous decomposition products:
Respirable crystalline silica-containing dust may be generated. When heated, quartz is slowly transformed into tridymite (above 860°C/1580°F) and cristobalite (above 1470°C/2678°F). Both tridymite and cristobalite are other forms of crystalline silica.

11. Toxicological information

Primary Routes of Exposure:
Inhalation and contact with the eyes and skin.

Symptoms related to the physical, chemical, toxicological characteristics

Inhalation:

Dust may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur.

Symptoms of silicosis may include (but are not limited to) shortness of breath, difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

Eye Contact:

Dust particles can scratch the eye causing tearing, redness, a stinging or burning feeling, or swelling of the eyes with blurred vision.

Skin Contact:

Dust particles can scratch and irritate the skin with redness, an itching or burning feeling, swelling of the skin, and/or rash.

Ingestion:

Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation including nausea, vomiting, diarrhea, and blockage.

Medical Conditions Aggravated by Exposure:

Irritated or broken skin increases the chance of contact dermatitis. Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin, and lung (including asthma and other breathing disorders). Smoking tobacco will impair the ability of the lungs to clear themselves of dust.

Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Inhalation of respirable silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Prolonged overexposure to respirable dusts in excess of allowable exposure limits can cause inflammation of the lungs leading to possible fibrotic changes, a medical condition known as pneumoconiosis.

Prolonged and repeated overexposure to high levels of respirable crystalline silica-containing dust may cause a chronic form of silicosis, an incurable lung disease that may result in permanent lung damage or death. Chronic silicosis generally occurs after 10 years or more of overexposure; a more accelerated type of silicosis may occur between 5 and 10 years of higher levels of prolonged and repeated overexposure. In early stages of silicosis, not all individuals will exhibit symptoms (signs) of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposure has ceased. Silicosis is normally diagnosed with chest x-rays where lung lesions are visible as radiographic opacities less than 1 centimeter in diameter primarily in the upper lung areas. This first stage of silicosis may progress into complicated silicosis which will have opacities on chest x-rays that are greater than 1 centimeter. Advanced complicated silicosis or progressive massive fibrosis may lead to decreased lung function and may be disabling and lead to death. Advanced complicated silicosis can result in heart disease along with lung disease.

Repeated overexposures to very high levels of respirable crystalline silica for periods as short as six months may cause acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include (but are not limited to): shortness of breath, cough, fever, weight loss, and chest pain.

Respirable dust containing newly broken crystalline silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older crystalline silica particles of similar size. Respirable crystalline silica particles which had aged for sixty days or more showed less lung injury in animals than equal exposures to respirable dust containing newly broken particles of respirable crystalline silica.

There are reports in the literature suggesting that excessive respirable crystalline silica exposure may be associated with autoimmune disorders such as systemic lupus, erythematosus, rheumatoid arthritis and in particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. There is evidence of other adverse health effects involving the kidney with high exposure to crystalline silica including end stage renal disease.

Carcinogenicity:

Epidemiology studies on the association between respirable crystalline silica exposure and lung cancer have had both positive and negative results. There is some speculation that the source, type, and level of exposure of respirable crystalline silica may play a role. Studies of persons with silicosis indicate an increased risk of developing lung cancer, a risk that increases with the level and duration of exposure. It is not clear whether lung cancer develops in non-silicotic patients. Several studies of silicotics do not account for lung cancer confounders, especially smoking, which have been shown to increase the risk of developing lung disorders, including emphysema and lung cancer.

In October 1996, an IARC Working Group designated respirable crystalline silica as carcinogenic (Group 1). In 2012, an IARC Working Group re-affirmed that inhalation of crystalline silica was a known human carcinogen. The NTP's Report on Carcinogens, 9th edition, lists respirable crystalline silica as a "known human carcinogen." In the year 2000, the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline silica (quartz) as a suspected human carcinogen (A-2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to respirable crystalline silica.

Additional information on toxicological effects:

Acute toxicity: Not classified.

Skin corrosion/irritation: Not classified.

Serious eye damage/eye irritation: Not classified.

Respiratory sensitization: Not classified.

Skin sensitization: Not classified.

Germ cell Mutagenicity: Not classified.

Carcinogenicity: May cause cancer (Inhalation).

Reproductive toxicity: Not classified

Specific target organ toxicity - single exposure: Not classified.

Specific target organ- toxicity – repeated exposure: Causes damage to organs (lungs, respiratory system) through prolonged or repeated exposure (inhalation)

Aspiration toxicity: Not classified (not applicable- solid material)

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available):
Not determined

Persistence and degradability:
Not determined

Bioaccumulative potential.
Not determined

Mobility in soil.
Not determined

Other adverse effects.
Not determined

13. Disposal considerations

Safe handling and disposal of waste:
Place contaminated materials in appropriate containers and dispose of in a manner consistent with applicable federal, state, and local regulations. Prevent from entering drainage, sewer systems, and unintended bodies of water. It is the responsibility of the user to determine, at the time of disposal, whether the product meets criteria for hazardous waste. Product uses, transformations, mixture and processes, may render the resulting material hazardous.

14. Transport information

UN Number:
Not regulated.

UN Proper shipping name:
Not regulated.

Transport Hazard class:
Not applicable.

Packing group, if applicable:
Not applicable.

Marine pollutant (Yes/No):
Not applicable.

15. Regulatory information

Toxic Substances Control Act (TSCA):
The components in this product are listed on the TSCA Inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):
Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act.

Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III:
Section 302 extremely hazardous substances: None
Section 311/312 hazard categories: Delayed Health
Section 313 reportable ingredients at or above de minimus concentrations: None

California Proposition 65:
This product contains a chemical (crystalline silica) known to the State of California to cause cancer.

State Regulatory Lists:
Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list or all state regulations. Therefore, the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply.

16. Other information

Disclaimer

NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

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