SAFETY DATA SHEET

Natural Sand and Gravel

SDS DATE: 1/1/2022

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Natural Sand and Gravel

FORMULA: Not applicable

SYNONYMS: Construction Aggregate

MANUFACTURER/Contact info: Johnson Sand and Gravel Inc.
20685 W National Avenue
New Berlin WI 53146

GENERAL PHONE NUMBER: 262/679-4400

Johnson SAND & GRAVEL, INC.

SECTION 2: COMPOSITION INFORMATION ON INGREDIENTS

Hazardous Components : Natural Sand and Gravel*
*Composition varies naturally-typically contains some quartz (Crystalline silica)

CAS NO.	% WT
None	100
14808-60-7	<1

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING

Dust may irritate eyes, skin and respiratory tract. Avoid breathing excessive dust. Breathing silica-containing dust for prolonged periods in the workplace can cause lung damage and a lung disease called silicosis. Several scientific organizations have classified crystalline silica as causing lung cancer in humans. Silicosis or lung cancer can result in permanent injury or death.

GHS Classification:

Carcinogenicity-Category 1A
Specific target organ toxicity, repeated exposure - Category 2
Skin Corrosion/Irritation - Category 2
Eye Damage/Irritation - Category 2A

GHS Label Elements:

Hazard pictograms:	Signal Word:	Hazard Statement :
	**DANGER**	May cause cancer May cause damage to organs (lung) through prolonged or repeated exposure Causes skin irritation Causes serious eye irritation

SECTION 3: HAZARDS IDENTIFICATION (cont.)

Physical Hazards : Not Classified

Primary Routes of Exposure:

Inhalation and contact with the eye and skin

Eye Contact:

Dust particles can scratch the eye causing tearing, redness, a singing 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.

Skin Absorption:

Not expected to be significant exposure route.

Inhalation:

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

Ingestion:

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

Effects Following Prolonged or Repeated Exposure:

Exposure to high levels of respirable crystalline silica is associated with silicosis, lung cancer, and autoimmune disorders. See section 11 for more information.

Carcinogenicity:

Crystalline silica, a component in this product, has been listed as a carcinogen by the international Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) and/or the Occupational Safety and Health Administration (OSHA). For additional Information, see section 11.

POTENTIAL HEALTH EFFECTS

Signs and symptoms of Exposure:

Symptoms of silicosis may include (but are not limited t) to shortness of breath, difficulty of breathing with or without exertion; Coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure.

Medical Conditions Aggravated by Exposure:

Pre-existing medical conditions that may be aggravated by exposure include disorders of eye, skin, and lung (including asthma and Other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear themselves of dust.

SECTION 4: FIRST AID MEASURES

EYES:
Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding 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 or later develops.

SECTION 4: FIRST AID MEASURES (CONT.)

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

INHALATION:
Remove to fresh air. Dust in Throat and nasal passage should be clear spontaneously. Contact a physician if irritation persists of if Breathing is difficult.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:
Not all individuals with silicosis will exhibit symptoms of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposures have ceased. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS:

LEL: Not applicable **UEL:** Not applicable

FLASH POINT (Method Used): Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

EXTINGUISHING MEDIA:

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

SPECIAL FIRE FIGHTING PROCEDURES:

None

UNUSUAL FIRE AND EXPLOSION HAZARDS:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Precautions if Material is Spilled or Released:
Persons involved in cleanup process should first observe precautions (as appropriate) identified in Section 8 of this MSDS. 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 may be necessary. Prevent spill materials from entering streams, drains, or sewers.

Waste Disposal Methods:
Dispose of waste materials in accordance with applicable federal, state and local laws and regulations.

Environmental Precautions: Not applicable

SECTION 7: HANDLING AND STORAGE

STORAGE:
Do not store near food and beverage or smoking materials.

HANDLING:
Respirable crystalline silica-containing dust may be generated during processing, handling, and storage. Use personal protection and controls identified in section 8 of this MSDS as appropriate.

MANUFACTURED SAND MADE FROM THIS PRODUCT MUST NOT BE USED AS AN ABRASIVE BLASTING AGENT.

SECTION 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 PEL	ACGIH TLV	NIOSH REL
Particulates not otherwise classified	15mg/m3 (Total dust) 5 mg/m3 (respirable fraction)	10 mg/m3 (inhalable fraction) 3 mg/m3 (respirable fraction)	NE
Respirable dust containing silica	10 mg/m3 ÷ (% silica + 2)	Use Respirable Silica TLV	Use Respirable Silica REL
Total dust containing silica	Osha: 30mg/m3 ÷ (% silica +2) MSHA: 30mGg/m3 ÷ (% silica+3)	NE	NE
Respirable Crystalline Silica (quartz)	NE – Use respirable dust PEL	0.025 mg/m3	0.05 mg/m3
Respirable Tridymite and Cristobalite (other forms of crystalline silica)	½ of OSHA and MSHA Respirable dust PEL	0.025 mg/m3	0.05mg/m3

EYE PROTECTION:

Safety glasses with shields should be worn as minimum protection. Dust goggles should be worn when excessively (visible) dusty conditions are present or are anticipated.

SKIN PROTECTION:

Use gloves to provide hand protection from abrasion. In dusty conditions, use long sleeve shirts. 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 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 levels that exceed or are likely to exceed an 8 hr. Time Weighted Average (TWA) of 0.5 mg/m3, a high efficiency particulate filter respirator
Must be worn at a minimum, however; if respirable silica levels exceed or are likely to exceed an 8 hr. TWA of 5.0 mg/m3 a positive Pressure, full face respirator or equivalent is required. Respirator use must comply with applicable MSHA (42CFR 84) 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.

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.

OTHER:
Respirable dust and 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 workstation

SECTION 9: PHSYICAL AND CHEMICAL PROPERTIES

Boiling Point: Not applicable	**pH:** Not applicable	**Specific Gravity (H20 = 1)** 2.55 – 2.80
Evaporation Rate (Butyl Acetate + 1): 0	**Melting Point:** Not applicable	**Vapor Pressure (mm Hg.):** Not applicable
Solubility in Water: 0	**Vapor Density (Air + 1)** Not applicable	**% Volatile:** Not applicable

SECTION 10: STABILITY AND REACTIVITY

STABILITY:
Stable under normal temperatures and pressures.

CONDITIONS TO AVOID (STABILITY):
Contact with incompatible materials should be avoided (see below). See section 5 and 7 for additional information.

INCOMPATIBILITY (MATERIAL TO AVOID):
Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, an oxygen Difluoride may cause fire and/or explosions. Silica dissolves readily in hydrofluoric acid producing a corrosive gas-silicon tetrafluoride.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
Silica-containing respirable dust particles 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 and are considered more fibrogenic to the lungs than quartz.

HAZARDOUS POLYMERIZATION:
Not known to occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute effects:

No Specific data on product.

Effects Following Prolonged or Repeated Exposure:

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 inhalation of respirable crystalline silica-containing dust in excess of allowable exposure limits may cause chronic form silicosis, an incurable lung disease that may result in permanent lung damage or death. Chronic silicosis generally occurs 10 years or more of overexposure; a more accelerated type of silicosis may occur between 5 and 10 years of higher levels of exposure. In early stages of silicosis, not all individuals will exhibit symptoms (signs) of the disease. However, silicosis can be progressive, and symptoms can appear set any time, even years after exposure has ceased. Symptoms of silicosis may include, but are not limited to the following: shortness of breath; difficulty breathing with or without excretion; 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.

Repeated overexposure to very high levels of respirable crystalline silica (quartz, cristobalite, tridymite) 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 silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older silica particles of similar size. Respirable silica particles which had aged for sixty days or more show less lung injury in animals than equal exposures of respirable dust containing newly broken particles of silica.

There are reports in literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica and these adverse health effects.

SECTION 11: TOXICOLOGICAL INFORMATION (cont.)

Carcinogenicity:

Epidemiology studies on the association between crystalline silica exposure and lung cancer have had both positive and negative results. There is some speculation that the source and type of crystalline silica may play a role. Studies of persons with silicosis indicate an increased risk of developing lung cancer, a risk that increases with levels and duration of exposure. It is not clear whether or not lung cancer develops in non-silicosis patients. Several studies of silicosis 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). The NTP's Report on Carcinogens, 9th edition, lists respirable crystalline silica as a "known human carcinogen." In year 2000, the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline silica (quartz) as suspected human carcinogen (A-2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of worker exposed to crystalline silica.

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Ecotoxicological Data:
No specific data on this product. Not Expected to be to aquatic organisms.

Enviromental Fate Data:
No specific data on this product.

Other:
No specific data on this product.

SECTION 13: DISPOSAL CONSIDERATIONS

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 product meets criteria for hazardous waste. Product uses, transformations, mixture and processes, may render the resulting material hazardous.

SECTION 14: TRANSPORT INFORMATION

DOT Proper Shipping Name: Not regulated.	**DOT Hazard Classification:** Not applicable.
UN/NA Number Not regulated.	**DOT Packing Group:** Not applicable.

Labeling Requirements:
Not applicable. Label as required by the OSHA Hazard Communication Standard (29 CFR 1910.1200(f)), MSHA Hazard Communication standard (30 CFR Part 47) and applicable state and local regulations.

SECTION 15: REGULATORY INFORMATION (Note: Not intended to be all-inclusive.)

TSCA (TOXIC SUBSTANCE CONTROL ACT):

The components in this product are listed on the TSCA inventory or are exempt.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):

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.

SECTION 15: REGULATORY INFORMATION (Note: Not intended to be all-inclusive.) (cont.)

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986):

Section 302 Extremely Hazard Substance:
None

Section 311/312 Hazard categories:
Delayed Health

Section 313 Reportable ingredients at or above de minimums concentrations:
None

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

State Regulatory List:

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.

SECTION 16: OTHER INFORMATION

Disclaimer of Liability:

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