

Safety Data Sheet – Sand and Gravel

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Section 1 – Identification:

GHS product identifier:	Sand and Gravel
Synonyms:	Asphalt Sand, Natural Sand, Mason Sand, Concrete Sand And Gravel
Recommended Use:	Sand and Gravel aggregate may be used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction materials. Sand and Gravel aggregate may be distributed in bags, totes, and bulk shipments.
Supplier's Details:	CallananIndustries, Inc. 8 Southwoods Blvd. 4th Floor Albany, NY 12211 (518) 374-2222 www.callanan.com
Emergency telephone number:	(518) 374-2222

Section 2 – Hazards Identification:

GHS Hazard Classification(s): Carcinogenicity – Category 1A
 Specific Target Organ Toxicity – Category 2
 Repeated Exposure – Category 2

Pictogram(s):



Signal Word: Danger

Hazard Statement(s): May cause cancer. May cause damage to organs (lung) through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention:	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.
Response	If exposed or concerned: Get medical advice/attention.
Storage:	Restrict or 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 aggregates without an effective procedure for assuring safety.
Disposal:	Dispose of contents/containers in accordance with local, state and national regulations.
Hazard(s) not otherwise classified (HNOC):	None Known.
Supplemental Information:	Respirable Crystalline Silica (RCS) may cause cancer. Sand and Gravel is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, sand and gravel is not a known health hazard. Sand and Gravel 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 cancer according to IARC and 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.

Section 3 – Composition and Information on Ingredients:

Mixture:

Component	CAS Number	Weight %
Sand and Gravel	None	>99
Crystalline Silica (Quartz)	14808-60-7	>1

Section 4 – First Aid Measures:

Description of Necessary First Aid Measures:

Eye Contact	Sand and Gravel dust: Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Get medical attention if irritation develops or persists
Inhalation	Sand and Gravel dust: Move to fresh air. Call a physician if symptoms develop or persist.
Skin Contact	Sand and Gravel dust: Wash off with soap and water. Get medical attention if irritation develops and persists.
Ingestion	Sand and Gravel dust: Rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Most Important Symptoms and Effects, both Acute and Delayed:

Inhaling dust may cause discomfort in the chest, shortness of breath, and coughing. Prolonged inhalation may cause chronic health effects. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica liberated from this product can cause silicosis, and may cause cancer.

Indication of any Immediate Medical Attention and Special Treatment:

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information - Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear them of dust.

Section 5 – Firefighting Measures:

Extinguishing Media:

Suitable extinguishing media	Sand and Gravel is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None Known.
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted. Not a combustible dust
Special protective equipment and precautions for firefighters	Use protective equipment appropriate for surrounding materials.
Firefighting equipment and instructions	No specific precautions
Specific methods	Contact with powerful oxidizing agents may cause fire and/or explosions (see section 10 of SDS).
General fire hazards	No unusual fire or explosion hazards noted.

Section 6 – Accidental Release Measures:

Personal Precautions, Protective Equipment and Emergency Procedures:

General Measures:	Wear appropriate protective equipment and clothing during clean-up of materials that contain or may liberate sand and gravel dust.
Environmental Precautions	Avoid discharge of fine particulate matter into drains or water courses.
Methods and Material 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.

Section 7 – Handling and 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. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including incompatibilities	Avoid dust formation or accumulation

Section 8 – Exposure Controls Personal Protections:

Occupational Exposure Limits	<p>Value equivalent to OSHA formulas (29 CFR 1910.1000, 29 CFR 1917, 29 CFR 1918).</p> <p>Value also applies to MSHA Metal / Non-Metal (1973 TLVs at 30 CFR 56/57.5001).</p> <p>OSHA enforces 0.250 mg/m³ in construction and shipyards (CPL-03-00-007).</p> <p>Value also applies to OSHA construction (29 CFR 1926.55, Appendix A) and shipyards (29 CFR 1915.1000, Table Z).</p> <p>MSHA limit = 10 mg/m³.</p>
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U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Particulates not otherwise classified (CAS SEQ250)	PEL	5 mg/m ³	Respirable fraction
		15 mg/m ³	Total dust

U.S. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust 1,2
		0.1 mg/m ³	Respirable 1,2,3
		2.4 mppcf	Respirable 1,3,4
Particulates not otherwise classified (CAS SEQ250)	TWA	5 mg/m ³	Respirable fraction 1
		15 mg/m ³	Total dust 1,4,5
		50 mppcf	Total dust 1,4
		15mppcf	Respirable fraction 1
Tridymite and Cristobalite (other forms of crystalline silica)(CAS Mixture)	TWA	0.15 mg/m ³	Total dust 1
		0.05 mg/m ³	Respirable 1,2
		1.2 mppcf	Respirable 1

U.S. ACGIH Threshold Limit Values

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction
Tridymite and Cristobalite (other forms of crystalline silica)(CAS Mixture)	TWA	0.025 mg/m ³ 10 mg/m ³	Respirable fraction

U.S. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Exposure Guidelines

OSHA PELs, MSHA PELs, and ACGIH TLVs are 8-hr TWA values. NIOSH RELs are for TWA exposures up to 10-hr/day and 40-hr/wk. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including "Particulates Not Otherwise Classified," "Particulates Not Otherwise Regulated," "Particulates Not Otherwise Specified," and "inert or Nuisance Dust" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.

Appropriate Engineering Controls

Good general ventilation (typically 10 air changes per hour indoors) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Exposure Controls:

Eye and Face Protection	Wear safety glasses with side shields (or goggles).
Skin Protection	Use personal protective equipment as required.
Respiratory Protection	When handling or performing work with sand and gravel that produces dust or respirable crystalline silica in excess of applicable exposure limits, wear a NIOSH-approved respirator
Thermal Hazards	Not anticipated. Wear appropriate thermal protective clothing, when necessary.
General Hygiene Considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9 – Physical and Chemical Properties:

Information on Basic Physical and Chemical Properties:

Physical State	Solid
Form	Solid, particles
Color	N/A
Odor	N/A
Odor Threshold	N/A
pH	N/A

Melting Point and Freezing Point	N/A
Initial Boiling Point and Boiling Range	N/A
Flash Point	Non-combustible
Evaporation Rate	N/A
Flammability (Solid, Gas)	N/A
Flammability Limit – Lower %	N/A
Flammability Limit – Upper %	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Relative Density	N/A
Solubility (Water)	Insoluble
Partition Coefficient (n-octanol/water)	N/A
Auto-Ignition Temperature	N/A
Decomposition Temperature	N/A
Viscosity	N/A
Explosive Properties	N/A

Section 10 – Stability and Reactivity:

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

Section 11 – Toxicological Information:

Information on Toxicological Effect:

Inhalation	Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.
Skin Contact	Sand and Gravel dust: May cause irritation through mechanical abrasion.
Eye Contact	Sand and Gravel dust: May cause irritation through mechanical abrasion.
Ingestion	Not likely, due to the form of the product. However, accidental ingestion of the content may cause discomfort
Symptoms related to the physical, chemical and toxicological characteristics	Sand and Gravel dust: Discomfort in the chest. Shortness of breath. Coughing.
Acute Toxicity	Not expected to be acutely toxic.
Serious Eye Damage and Eye	Direct contact with eyes may cause temporary irritation

Irritation	
Skin Corrosion and Irritation	This product is not expected to be a skin hazard.
Skin Sensitization	Not known to be a dermal irritant or sensitizer.
Respiratory Sensitization	No respiratory sensitizing effects known.
Germ Cell Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

IARC Monographs - Overall Evaluation of Carcinogenicity:

Crystalline Silica(Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.
Respirable Tridymite and Cristobalite (other forms of Crystalline) (CAS Mixture)	1 Carcinogenic to humans.

NTP Report on Carcinogens:

Crystalline Silica(Quartz) (CAS 14808-60-7)	Known To Be Human Carcinogen.
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OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Reproductive Toxicity	Not expected to be a reproductive hazard.
Specific Target Organ Toxicity – Single Exposure	Not classified.
Specific Target Organ Toxicity – Repeated Exposure	Respirable crystalline silica: May cause damage to organs (lung) through prolonged or repeated exposure.
Aspiration Hazard	Due to the physical form of the product it is not an aspiration hazard.
Chronic Effects	Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the 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 the 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 exposure and these adverse health effects

Section 12 – Ecological Information:

Eco-toxicity	Not expected to be harmful to aquatic organisms. Discharging sand and gravel dust and fines into waters may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.
Persistence and Degradability	N/A
Bio-Accumulative Potential	N/A
Mobility in Soil	N/A
Other Adverse Effects	No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

Section 13 – Disposal Considerations:

Disposal Instructions	Do not allow fine particulate matter to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with fine particulates. Dispose of contents in accordance with local/regional/national/international regulations.
Hazardous Waste Code	Not regulated
Waste from Residue and Unused Products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated Packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty packaging materials should be recycled or disposed of in accordance with applicable regulations and practices.

Section 14 – Transportation Information:

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	N/A

Section 15 – Regulatory Information:

US Federal Regulations:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA):

Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	Not listed
SARA 311/312 Hazardous chemical	Yes
SARA 313 (TRI reporting)	Not regulated
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated
Safe Drinking Water Act (SDWA)	Not regulated

US State Regulations:

US. Massachusetts RTK - Substance List	Crystalline Silica(Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
US. New Jersey Worker and Community Right-to-Know Act	Crystalline Silica(Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
US. Pennsylvania Worker and Community Right-to-Know Law	Crystalline Silica(Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
US. Rhode Island RTK	Not regulated
US. California Proposition 65	WARNING: This product contains a chemical known to the State of California to cause cancer.
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance	Crystalline Silica(Quartz) (CAS 14808-60-7)

International Inventories:

Country or Region	Inventory Name	Inventory Available (Y/N)
*United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).		

Section 16 – Other Information:**Date of Issue: 03/04/2015****Last Revised: 05/11/2018**

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