## SECTION 1. IDENTIFICATION

PRODUCT IDENTIFIER:	Sand and Gravel
OTHER IDENTIFIABLE NAMES:	Natural Sand, Silica Sand, Crystalline Silica (Quartz), Gravel, and Sand
RELEVANT KNOWN USES:	Sand and Gravel may be used in the manufacture of bricks, mortar, pavestone, cement, concrete, plaster, stucco, paving material, asphalt, engine sand, traction sand, arena sand, sports turf, athletic facilities, etc Sand and gravel aggregate may be distributed in bulk quantities, or in bulk bags.
RESTRICTIONS:	Sand and Gravel is NOT sold as a blasting media.
SUPPLIER INFORMATION:	INFINITE SOLUTIONS 10023 MAINE AVENUE LAKESIDE, CA 92040
	Emergency Contact: 619-328-0525

## SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:	CARCINOGENICITY- Category IA
GHS Label Elements:	SPECIFIC TARGET ORGAN TOXICITY- Category 2
	REPEATED EXPOSURE
	EYE DAMAGE/IRRITATION- Category 2A
Hazard Pictograms:	



Signal Word: Hazard Statement:

Precautionary Statement:

PREVENTION:



Danger

May cause damage/cancer to organs (lung) via prolonged, or repeated exposure by inhalation. May cause skin irritation. May cause serious eye damage.

#### DO NOT HANDLE UNTIL SAFETY INFORMATION PRESENTED IN THIS SDS HAS BEEN READ AND UNDERSTOOD. Do not breathe dust or mists. Do not smoke, eat, or drink while handling this product. Wear protective gloves and elething, as well as any protection

Do not breathe dust or mists. Do not smoke, eat, or drink while handling this product. Wear protective gloves and clothing, as well as eye protection, and a respirator.

If exposed or concerned ask for medical advice/attention. If inhaled, remove victim to fresh air and keep in a position comfortable for breathing. If skin and hair are exposed wash skin/hair thoroughly with plenty of water. Take off contaminated clothing and wash before reuse. If in the eyes rinse/flush continuously with water for several minutes. If swallowed, rinse mouth and do not induce vomiting. Wear eye protection and respiratory protection following this SDS, NIOSH guidelines, and other applicable regulations. If unconcerned, exposed, or unwell, or experience irritation of the eyes, skin, mouth, or throat/nasal passage persist; Seek medical attention.
Avoid creating dust when handling, using, or storing this product. Avoid
dust if at all possible. Use adequate ventilation when handling this product.
IATERIAL IS NOT TO BE USED AS AN ABRASIVE FOR
ING.
Dispose of contents/container in accordance with local/regional/
national/international regulations.
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Some studies state 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. When sand and gravel is in a state of movement small particles (dust) may become airborne and may contain respirable crystalline silica (quartz). Respirable crystalline silica may cause lung cancer according to IARC and NTP. ACGIH states that it is a suspected cause of cancer.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number/Other Identifiers:		
NAME	%	CAS Number
Crystalline Silica (quartz)	>1	14808-60-7
Sand and Gravel	>99	None

Crystalline Silica (Quartz) is the only known element that may present a health hazard due to dust inhalation. Trace amounts of other naturally occurring elements, mined from the earth, might be detected, however, there are no known ingredients that present any health hazards.

Occupational exposure limits to crystalline silica (quartz) are listed under section 11.

## SECTION 4. FIRST AID MEASURES

#### DESCRIPTION/ACTION

INHALATION:	Immediately move victim to fresh air.
EYES:	Immediately flush eye(s) with plenty of water for at least 15 minutes, while
	holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough

	rinsing. Remove contact lenses if present and continue rinsing. Beyond flushing,
	do not attempt to remove material from the eye(s). Contact a physician if irritation
	persists, or develops later.
SKIN:	Rinse with soap and water. Contact a physician if irritation persists, ordevelops
	later.
INGESTION:	If swallowed, rinse mouth and do not induce vomiting. If gastrointestinal
	discomfort occurs, persists, or develops late, seek medical attention.

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#### SIGNS AND SYMPTOMS OF EXPOSURE

Generally, there are no signs and symptoms of short term exposure to respirable crystalline silica. Long term exposure to respirable crystalline silica, without using approved respiratory masks, may lead to chronic or acute silicosis, and may lead to cancer. The symptoms of chronic silicosis if persistent are shortness of breath, wheezing, cough, sputum production. The symptoms of acute silicosis which can occur with exposures to very heavy concentrations of respirable crystalline silica over very short periods of time, sometimes as short as 6 months, are the same as those associated with chronic silicosis; additionally, weight loss and fever may also occur. Direct skin and eye contact with dust and sand particles may cause irritation by mechanical abrasion. Ingestion of large amounts of the product may cause gastrointestinal irritation and blockage. Inhalation of crystalline silica dust may irritate nose, throat, mucous membranes and respiratory tract by mechanical abrasion. Coughing, sneezing, chest pains, shortness of breath, inflammation of mucous membranes, and flu-like fever may occur following exposures in excess of appropriate exposure limits. Repeated excessive exposure may cause pneumoconiosis, such as silicosis and other respiratory effects.

- **PHYSICIANS** Provide general supportive measures and treat symptomatically. Keep patient under observation. Symptoms may be delayed.
- **GENERAL** Pre-existing medical conditions that may be aggravated by exposure include disorders of the skin and lung (including asthma and other breathing disorders.) Smoking tobacco is discouraged as this will impair the ability of the airways and lungs to collect and clear themselves of dust.

### SECTION 5. FIRE FIGHTING MEASURES

COMBUSTIBLE	NO
EXTINGUISHING AGENT	Use extinguishing media compatible with surrounding fire.
PROPER PROCEDURES	NONE
PROTECTIVE EQUIPMENT	Use protective equipment compatible with surrounding fire.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

In the event respirable crystalline silica dust is being generated through movement of product, ventilate or wet down the area with water. Before spill clean-up, wet the material with water, or collect the material using a method that does not produce dust such as a High- Efficiency Particulate Air (HEPA) vacuum. Wear appropriate respirators during and following clean-up, or whenever airborne dust is present to ensure exposures remain below occupational exposure limits (OELs- refer to section 8.)

# SECTION 7. HANDLING AND STORAGE

Do NOT handle until all safety precautions have been read and understood.

Follow protocols set forth in section 8 of this SDS when handling this product.

When using, or handling this media in a dry state, wear NIOSH approved respirators, and carefully change out clothing, and shower, washing thoroughly with soap and water. Do not breathe dust. Avoid contact with skin and eyes. Do not stand on large piles, for this media could be unstable causing an avalanche.

Use adequate ventilation and an approved dust collection system that will reduce airborne dust levels to below OELs. It is also recommended that NIOSH approved respirators be worn when there is any indication dust may be generated.

Observe good industrial hygiene practices. Promptly remove dusty clothing and laundry before reuse.

Use good housekeeping procedures to prevent the accumulation of dust in the workplace.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **CONTROL PARAMETERS**

Occupational Exposure Limits 1-OSHA limit= 50mcg/m3 averaged over an 8 hour shift

2- MSHA limit = 10mg/m3

#### Appropriate Engineering Controls:

Use good ventilation practices if available. Ventilation rates should match the condition application. If possible use enclosures, exhaust fans, dust collectors, wet scrubbers, or other engineering controls to maintain levels below the recommended exposure limits. If exposure limits have not been established, use good general practices to maintain airborne levels to an acceptable level.

**Exposure Guidelines:** 

OSHA PEL's, MSHA PEL's and ACGIH TLV's are 8 hour TWA values. NIOSH REL's are for TWA exposures up to 10hr/day and 40 hours per week. Occupational exposure to nuisance dust, 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 due" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings. Individual Protection Measures: HYGIENE MEASURES:

EYE/FACE PROTECTION:

HAND PROTECTION:

BODY PROTECTION:

OTHER SKIN PROTECTION:

**RESPIRATORY PROTECTION:** 

Always good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking (smoking is discouraged). Routinely wash work clothing and protective equipment to remove contaminants.

Wear safety glasses with shields, or goggles.

Use personal protection equipment as required.

Use personal protection equipment as required.

Use personal protection equipment as required.

When handling or performing work that produces dust, or respirable crystalline dust, or respirable crystalline silica in excess of applicable exposure limits, wear a NIOSH approved respirator that is properly fitted and is in good condition. Respirators must be used in accordance with all applicable workplace regulations.

THERMAL HAZARDS:

Not anticipated. Wear appropriate thermal protective clothing if necessary.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state/Appearance: Color: Odor: Odor Threshold: Ph: Melting Point: Boiling Point: Flash Point: Burning Time: Burning Rate: Evaporation Rate: Flammability (solid, gas):	Solid, particles of granular mixture Various Colors Not applicable Not applicable Not available Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable
Lower & Upper Explosive Flammable limits:	Not applicable
Vapor Pressure: Vapor Density: Relative Density: Solubility: Solubility in water: Particle coefficient: n-octanol / water: Auto-ignition temperature: Decomposition temperature: SADT: Viscosity:	Not applicable Not applicable Not available Not available Insoluble Not applicable Not applicable Not applicable Not available Not applicable

# 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.
CONDITIONS TO AVOID:	Avoid contact with strong oxidizing agents.
INCOMPATIBLE MATERIALS:	Crystalline silica may react violently with strong oxidizing agents, causing fire and explosions.
HAZARDOUS DECOMPOSITION PRODUCTS:	Silica dissolves in hydrofluoric acid producing a corrosive gas : silicon tetrafluoride

# SECTION 11. TOXICOLOGICAL INFORMATION

### INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity: Irritant/Corrosion:	Not expected to be acutely toxic. <b>SKIN:</b> Dust may cause irritation through mechanical abrasion. Not expected to be a skin hazard. <b>EYES:</b> Direct contact with the eyes may cause temporary irritation through mechanical abrasion. <b>INHALATION:</b> Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies have suggested that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.
Sensitization:	<b>RESPIRATORY SENSITIZATION:</b> No respiratory sensitizing effects known.
A	<b>SKIN SENSITIZATION:</b> Not known to be a dermal irritant or sensitizer.
Aspiration Hazard:	Not expected to be an aspiration hazard.
Reproductive Toxicity:	Not expected to be a reproductive hazard.

#### Symptoms related to physical, Chemical, and toxicological Characteristics: Carcinogenicity:

**DUST:** Discomfort in the chest, Shortness of breath, and Coughing. Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

Product / Ingredient name	OSHA	IARC	ACG	IH HTP
Crystalline Silica (Quartz) CAS 14808-60-7	Not Listed	1. Carcinogen to humans	A2	Known to be a carcinogen

#### Specific Target Organ Toxicity (Acute Exposure)

Product/Ingredient name	Category	Route of Exposure	Target Organs
Crystalline Silica (Quartz) CAS 14808-60-7	_	Inhalation	Not reported to have effects
Respirable Tridymite	_	Inhalation	Not reported to have effects

#### Specific Target organ Toxicity (Chronic Exposure)

Product/Ingredient name	Category	Route of Exposure	Target Organs
Crystalline Silica (Quartz) CAS 14808-60-7	_	Inhalation	May cause damage to organs (Lung) through prolonged or repeated exposure.

**Potential Chronic Health Effects: General:** Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged, or repeated exposure. There are reports that suggests that excessive exposure to crystalline silica may be associated with autoimmune disorders and other adverse effects involving the kidney. In particular, the incidence of scleroderma, the thickening of the skin caused by swelling and thickening of fibrous tissue, appears to be higher in siliotic individuals.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Not expected to be harmful to aquatic organisms. Discharging sand and gravel dust and fines into waste waters may increase total suspended particulates (TSP) levels that can be harmful to certain aquatic organisms.

### SECTION 13. DISPOSAL CONSIDERATIONS

Crystalline silica (quartz) is not hazardous to the environment. Dispose of waste in accordance with federal, state, and local laws and regulations.

# SECTION 14. TRANSPORT INFORMATION

This product is not classified as a Hazardous Material under U.S. DOT.

### DOT HAZARD CLASSIFICATION: NONE

#### PLACARD REQUIRED: NONE

**LABEL REQUIRED:** Label as required by OSHA Hazard Communication Standard (29 CFR 1910.1200(f) and applicable state and local laws and regulations.

### SECTION 15. REGULATORY INFORMATION

**OSHA:** Crystalline Silica is NOT listed as a carcinogen.

OSHA Hazard Communication Standard 29 CFR 1910.1200: This product is a "Hazardous Chemical".

TSCA: Not regulated

**CERCLA- 40 CFR 302.4**: Crystalline Silica (quartz) is NOT classified as a Hazardous waste under the Comprehensive Environmental Response, Compensation, and Liability Act.

**RCRA- 40 CFR 261 et seq**: Crystalline Silica (quartz) is NOT classified as a Hazardous waste under the Resource Conservation and Recovery Act.

**EPCRA**: Crystalline Silica (quartz) is NOT an extremely hazardous substance under regulations of 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) does not contain any Class I or Class II ozone depleting substances.

SARA Title III: Section 311 and 312 - Immediate health hazard and delayed health hazard.

**California Prop. 65:** WARNING- This product contains crystalline silica which is a known carcinogen to the State of California.

### USERS RESPONSIBILITY:

The OSHA Hazard Communication Standard 29 CFR 1910.1200 requires that this SDS be made available to employees, or anyone who handle, or may be exposed to this product.

#### NOTICE/DISCLAIMER:

The information provided in this SDS, as of May 2019, is true and accurate according to data currently available. This SDS does not address safety and hazards that may be present when other materials are mixed with this product, it is the USER's responsibility to research these materials as to health and environment concerns to implement the necessary training and procedures to ensure safe handling of this product. It is also the USER's responsibility to verify the validity of the information provided in the SDS.

### INFINITE SOLUTIONS DISCLAIMER

Information in this SDS is believed to be true and accurate at this time. No guarantee or warranty of any kind is made with respect to information contained herein. We assume no responsibility and disclaim all liability for any defects from the purchase, resale, or exposure to any of our Crystalline Silica (Quartz) products. Customers and users of our Crystalline Silica (quartz) must comply with the applicable safety and health laws, safety and health regulations, and orders, including the OSHA Hazardous Communication Standard.

Occupational Safety and Health Administration (OSHA) Phone number: 1-800-321-OSHA Website: http://www.osha.gov

National Institute for Occupational Safety and Health (NIOSH) Phone number: 1-800-35-NIOSH Website: http://www.cdc.gov/niosh