

SAFETY DATA SHEET

Section 1. Identification

Product Name: Gritlock Paver Joint Sand

Other Names: None

Supplier Details: Material Sales Unlimited
PO Box 5067
Buena Park, Ca 90622
(800) 788-9067
www.msubulk.com

Emergency Phone: CHEMTREC (800) 424-9300

Section 2. Hazards Identification

Hazard Classification:

OSHA/HCS Status:

This product contains one or more chemicals considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Physical Hazards:

None

GHS Classification:

Carcinogenicity- Category 1A

Specific Target Organ Toxicity- Category 2

Skin Corrosion/Skin Irritation- Category 2

Eye Damage/Irritation- Category- 2A

GHS Label Elements:



Signal Word:

Danger

Hazard Statements:

May cause damage/cancer to organs (lungs) due to prolonged or repeated exposure via inhalation.

May cause skin irritation.

May cause serious eye irritation/damage.

Precautionary Statements:

Prevention:

Obtain instruction before use. Do not eat, drink, or smoke while using this product. Use personal protective equipment including protective gloves, protective clothing, eye protection, and a dust mask/respirator.

Response:

If exposed or concerned seek medical advice/attention. If inhaled, remove victim to fresh air and keep in a comfortable breathing position. If skin is exposed, rinse with copious amounts of water. Take off contaminated clothing and wash before reuse. If eyes are exposed, rinse continuously for several minutes. Remove any contacts if present and easily able to do. If swallowed, rinse mouth and do not induce vomiting.

Storage:

Store in a cool and dry location.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards:

None known.

Supplemental Information:

Some studies state that Respirable Crystalline Silica (RCS) may cause cancer. Gritlock contains varying quantities of quartz (crystalline silica). In its natural bulk state, the sand and gravel in Gritlock is not a known health hazard. When Gritlock 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

Substance/Mixtures:

Mixture

Common Name:

Gritlock Paver Joint Sand

CAS Number:

Mixture

Ingredient Name	CAS-No.	%
Sand and Gravel	None	>93
Crystalline Silica (Quartz)	14808-60-7	>1
Polymer Blend	Mixture	<7

Any concentration shown as a range is to protect confidential information or is due to blending process variation. There are no other materials present, within the current knowledge of the supplier, and in the concentrations applicable, are classified as hazardous to health or the environment and therefore require reporting in this section. Some of the materials in this product are mined from the earth and trace amounts of naturally occurring elements may be detected during chemical analysis of this product.

Occupational exposure limits, if available, are listed in Section 8

Section 4. First Aid Measures

Description of Necessary First Aid Measures:

Inhalation:

Immediately move victim to fresh air. Get medical attention if symptoms persist

Eye Contact:

Immediately flush with plenty of water for at least 15 minutes while holding the eyelids open. Remove contact lenses if present and easily able to do. Beyond flushing, do not attempt to remove material from the eyes. Get medical attention if irritation develops or persists.

Skin Contact:

Wash off with soap and water. Get medical attention if irritation develops or persists.

Ingestion:

Rinse mouth and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. If discomfort develops or persists, seek medical attention.

Signs and Symptoms of Exposure:

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 from this product can silicosis, and may cause cancer.

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 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 5. Fire Fighting Measures

Extinguishing Media:

Suitable Extinguishing Media:

Not flammable. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media:

None known.

Special Hazards:

Polymer dust can accumulate and create an explosion hazard

Special Protective Equipment for Firefighters:

Use protective equipment appropriate for surrounding materials. No specific precautions. No unusual fire or explosion hazards.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Always use appropriate personal protective equipment during the clean-up of materials that contain or generate dust.

Methods and Materials for Containment and Cleaning Up:

Spilled material, where dust is generated may overexpose cleanup personnel to Respirable Crystalline Silica 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. Avoid discharge of fine particulate matter into drains or water courses.

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. Keep away from heat, sparks, and flame. 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.

Conditions for Safe Storage, Including any Incompatibilities:

Avoid dust formation or accumulation. Store in a cool, dry area.

Section 8. Exposure controls/Personal Protection

Control Parameters:

Occupational Exposure Limits:

1-Value equivalent to OSHA formulas (29 CFR 1910.1000;29 CFR)

2-Value also applies to MSHA metal/Non-Metal (1973 TLVs at 30 CFR 56/57.5001)

3-OSHA enforces 0.250 mg/m^3 in construction and shipyards (CPL-03-00-007)

4-Value also applies to OSHA construction (29 CFR 1926.55 Appendix A) and shipyards (29 CFR 1915.1000 Table Z)

5-MSHA Limit = 10 mg/m^3

Ingredient Name	Exposure Limits
Particles not otherwise classified	ACGIH TLV (United States, 3/2012) TWA: 3 mg/m^3 . Form: Respirable particles (2) TWA: 10 mg/m^3 . Form: Inhalable particles (2) OSHA PEL (United States, 6/2010) PEL: 5 mg/m^3 . Form: Respirable fraction PEL: 15 mg/m^3 . Form: Total dust(4) TWA: 5 mg/m^3 . Form: Respirable fraction (1) TWA: 15 mg/m^3 . Form: Total dust (1, 4, 5)
Crystalline Silica (Quartz) (CAS 14808-60-7)	OSHA PEL (United States, 6/2010) TWA: 0.3 mg/m^3 . Form: Total dust (1,2) TWA: 0.1 mg/m^3 . Form: Respirable (1,2,3)
Crystalline Silica (all forms CAS mixture)	ACGIH TLV (United States,3/2012) TWA: 0.025 mg/m^3 . Form: Respirable fraction NIOSH REL (United States,6/2009) TWA: 0.05 mg/m^3 . Form: Respirable dust

Exposure Controls:**Appropriate Engineering Controls:**

Use good ventilation practices. 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 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 Due" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.

Biological Limit Values:

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

Individual Protection Measures, Such as Personal Protective Equipment:**Hygiene Measures:**

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.

Eye/Face Protection

Wear safety glasses with side shields (or goggles).

Hand Protection:

Use personal protective equipment as required.

Body Protection:

Use personal protective equipment as required.

Other Skin Protection:

Use personal protective equipment as required.

Respiratory Protection:

When handling or performing work that produces 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:	Solid, Particles of Granular Mixture
Color:	Various Colors
Odor:	Not Applicable
Odor Threshold:	Not Applicable
pH:	No Data Available
Melting Point/Freezing Point:	Not Applicable
Initial Boiling Point & Range	Not Applicable
Flash Point:	Non-combustible
Burning Time:	Not Applicable
Evaporation Rate:	Not Applicable
Flammability (solid, gas):	Not Applicable
Upper Explosion Limit:	Not Applicable
Lower Explosion Limit:	Not Applicable
Vapor Pressure:	Not Applicable
Relative Vapor Density:	Not Applicable
Relative Density:	Not Available
Solubility:	Not Available
Solubility in Water:	Insoluble
Partition Coefficient: (n-octanol/water)	Not Applicable
Auto-ignition Temperature:	Not Applicable
Decomposition Temperature:	Not Applicable
SADT:	Not Available
Viscosity:	Not Applicable

Section 10. Stability and Reactivity

Reactivity:

This 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:

Not expected to be acutely toxic.

Irritation/Corrosion:

Skin: May cause irritation through mechanical abrasion. This product is not expected to be a skin hazard.

Eyes: Direct contact with eyes may cause temporary irritation through mechanical abrasion.

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 increased 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.

Ingestion: Not Likely due to product form. However accidental ingestion may cause discomfort.

Sensitization:

Respiratory sensitization: No respiratory sensitizing effects known.

Skin sensitization: Not known to be a dermal irritant or sensitizer.

Mutagenicity:

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

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:

Dust, discomfort in chest. Shortness of breath. Coughing.

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.

Product/Ingredient Name	OSHA	IARC	ACGIH	NTP
Crystalline Silica (Quartz) CAS 14808-60-7)	Not listed	1 Carcinogenic to humans	A2	Known to be human carcinogen.
Respirable Tridymite and Cristobalite (other forms of crystalline) (CAS Mixture)	Not listed	1 Carcinogenic to humans	-	-

Specific Target Organ Toxicity (acute exposure):

Name	Category	Route of Exposure	Target Organs
Crystalline Silica (Quartz) CAS 14808-60-7)	-	Inhalation	Not reported to have effects.
Respirable Tridymite and Critobalite (other forms of crystalline) (CAS Mixture)	-	Inhalation	Not reported to have effects.

Specific Target Organ Toxicity (chronic exposure):

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.
Respirable Tridymite and Critobalite (other forms of crystalline) (CAS Mixture)	-	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 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 the 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

EcoToxicity:

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

Persistence and Degradability:

Not Applicable

Bio Accumulative Potential:

Not Applicable

Mobility in Soil:

Not Applicable

Other Adverse effects:

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, and global warming potential) are expected from this component.

Section 13. Disposal Considerations

Disposal Methods:

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 Residues/Unused Product:

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.

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. Transport Information

	DOT Classification	IMDG	IATA
UN Number	Not Regulated	Not Regulated	Not Regulated
Transport Hazard Class(es)	-	-	-
Packaging Group	-	-	-
Environmental Hazards	-	-	-
Additional Information	-	-	-

Transport in bulk according to ANNEX II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory Information

OSHA Hazard Communication Standard, 29 CFR 1910.1200:

This product is a "Hazardous Chemical."

TSCA Section 12 (b) Export Notification (40 CFR 707, Subpart. D)

Not Regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Not Listed

CERCLA Hazardous Substance List (40 CFR 302.4):

Not Listed

Clean Air Act Section 112 (b): Hazardous Air Pollutants (HAPs):

Not Regulated

Clean Air Act Section 112 (r) Accidental Release Prevention (40 CFR 68.130):

Not Regulated

Safe Drinking Water Act (SDWA):

Not Regulated

SARA 311/312:

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Crystalline Silica (Quartz) CAS 14808-60-7	>1	No	No	No	No	Yes

SARA 313 (TRI):

	Product Name	CAS Number	%
Form R-Report Requirements	Crystalline Silica (Quartz)	14808-60-7	Not Regulated

State Regulations:

Massachusetts RTK:

The following components are listed: Crystalline Silica (Quartz) (CAS 14808-60-7), Respirable Tridymite and Cristobalite (other forms of Crystalline Silica) (CAS mixture).

New Jersey RTK:

The following components are listed: Crystalline Silica (Quartz) (CAS 14808-60-7), Respirable Tridymite and Cristobalite (other forms of Crystalline Silica) (CAS mixture).

Pennsylvania RTK:

The following components are listed: Crystalline Silica (Quartz) (CAS 14808-60-7), Respirable Tridymite and Cristobalite (other forms of Crystalline Silica) (CAS mixture).

Rhode Island RTK:

Not regulated:

California Prop. 65:

This product contains Crystalline Silica and chemicals (trace metals) known to the State of California to cause cancer.

Ingredient Name	Cancer	Reproductive	No Significant Risk Level	Maximum Acceptable Dosage Level
Crystalline Silica (Quartz) CAS 14808-60-7	Yes	No	No	No

WHMIS Classification:

D2A "Materials Causing Other Toxic Effects"



Section 16. Other Information

Abbreviations:

ACGIH - American Conference of Governmental Industrial Hygienists
CAS - Chemical Abstract Service
CERCLA - Comprehensive Emergency Response and Comprehensive Liability Act
CFR - Code of Federal Regulations
DOT - Department of Transportation
GHS - Globally Harmonized System
IATA - International Air Transport Association
IARC - International Agency for Research on Cancer
IMDG - International Maritime Dangerous Goods
NIOSH - National Institute of Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
REL - Recommended Exposure Limit
SARA - Superfund Amendments and Reauthorization Act
SDS – Safety Data Sheet
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time-Weighted Average
UN - United Nations

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