

Safety Data Sheet (SDS)

Prepared to comply with GHS (Globally Harmonized System) and OSHA-Hazard Communication Standard 29 CFR.1910.1200, System of Classifying and Labeling of Chemicals

Material Name: Natural Sand

Section 1: Identification

1.1 Product trade names: Mason sand, concrete sand, manufactured sand, mound sand and other natural sand blends and/or combinations.

1.2 Product Class: Natural Sand Products

Product Codes: N/A

CAS/EC Number: Mixture (composition detailed in Section 3)

Intended Use: Design for landscape use, construction use, or as fill material.

1.3 Supplier:

County Materials Corp.

205 North St., P.O. Box 100

Marathon, WI 54448-0100

General Information Telephone: (800) 289-2569

Email: riskclaimssafety@countymaterials.com

1.4 Emergency telephone:

715-223-7788

Section 2: Hazard(s) Identification

2.1 Classification:

Carcinogenicity – Category 1A

Specific Target Organ Toxicity (Single Exposure-Respiratory System) – Category 3

Specific Target Organ Toxicity (Repeat Exposure-Respiratory System) – Category 1

2.2 Labeling:

Pictograms:



Signal Word: DANGER

Hazard Statements

H335 – May cause respiratory irritation

H351 – Suspected of causing cancer

H372 – Causes damage to the organs (respiratory system) through prolonged or repeated exposure.

Precautionary Statements

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P261 – Avoid breathing dusts.

P271 – Use only outdoors or in a well-ventilated area.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Response

P304 + P340 + P312 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.

P308 + P313 – IF exposed or concerned: Get medical advice/attention.

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Storage

P403 – Store in a well-ventilated place.

P405 – Store locked up.

Disposal

P501 – Dispose of contents in accordance with local/regional/national/international regulations.

2.3 Other Hazards: This product is classified based on the dust/particulate generated during agitation. Potential hazards are related to particulate exposure. Exposure to entrained dusts can cause acute and chronic health problems. Sand is a naturally occurring mineral complex that contains variable quantities of quartz (crystalline silica). Crystalline silica is a naturally occurring constituent in sand that may cause cancer. Sand may be subjected to various natural or mechanical agitation that results in airborne (fugitive) dust that may contain crystalline silica. Prolonged inhalation of crystalline silica may cause silicosis or cancer according to IARC and NTP. Other forms of crystalline silica (cristobalite/tridymite) may also be naturally present or formed during mechanical processes.

Section 3: Composition/Information on Ingredients ⁽¹⁾

Chemical Name	EINECS/EC	CAS	Percent	Classification
Fine Silica Dioxide (SiO ₂ , Silica, Quartz, Crystalline Silica) ⁽³⁾	231-545-4	14808-60-7	90-100%	Carcinogenicity – Category 1A Specific Target Organ Toxicity (Single Exposure-Respiratory System) – Category 3 Specific Target Organ Toxicity (Repeat Exposure-Respiratory System) – Category 1
Fine Aggregate/Gravel (crushed limestone)	207-439-9	1317-65-3	Varying	Specific Target Organ Toxicity (Single Exposure-Respiratory System) – Category 3 Specific Target Organ Toxicity (Repeat Exposure-Respiratory System) – Category 1
Amorphous (fused) Silica ⁽²⁾	231-545-4	7631-86-9	Varying	

1. This product's composition varies naturally. Sand may contain up to 100% crystalline silica (quartz). Crystalline silica is a known carcinogen.
2. EINECS/EC number for Amorphous silica is a general silica number.

Section 4: First-Aid Measures

4.1 Description of first aid measures:

Inhalation: Airborne dust may be inhaled. If breathing becomes difficult, remove person immediately to fresh air. SEEK MEDICAL ATTENTION IMMEDIATELY if person is unconscious or if breathing difficulty continues. Give artificial respiration and CPR if necessary.

Skin Contact: Treat symptomatically. Cuts and abrasions should be cleaned and bandaged. Rinse with clean potable water. If irritation develops or persists, seek medical attention.

Eye Contact: Rinse eyes thoroughly with potable water for at least 15 minutes and remove contacts if easy to do. Rinse under eyelids to remove any particles. Seek medical attention for abrasions.

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Section 4: First-Aid Measures

Ingestion: Although highly improbable, if the person is conscious and aware, give large amounts of water. Never attempt to make an unconscious person drink or vomit. If the person is unconscious it may be necessary to sweep the blockage out of the mouth using a finger. Seek emergency medical attention if deemed necessary.

4.2 Most important symptoms and effects:

Inhalation: May cause irritation of the respiratory tract. May cause allergic or asthma-like respiratory reactions.

Skin Contact: May cause irritation, cuts or abrasions.

Eye Contact: May cause severe irritation, abrasions, redness, tissue destruction and permanent eye damage including blindness in extreme cases.

Ingestion: Expected to be virtually nontoxic. Ingestion of large amounts may cause gastrointestinal irritation, choking/blockage.

4.3 Indication of any immediate medical attention and special treatment needed: See Section 4.1.

Section 5: Fire-Fighting Measures

5.1 Extinguishing media: Product is not flammable. Use appropriate media for fire adjacent to product.

5.2 Special hazards arising from the substance or mixture: None known.

5.3 Advice to firefighters: None.

Section 6: Accidental Release Measures

6.1 Personal precautions: Wear appropriate protective equipment and clothing during clean-up as recommended in Section 8. Use caution and avoid breathing dust. Wear dust-mask or respirator if airborne concentrations approach or exceed exposure limits. Avoid sweeping spilled product as airborne silica may be generated.

6.2 Environmental precautions: Product is not an environmental hazard.

6.3 Methods and materials for containment and cleaning up: Shoveling or vacuuming. Avoid sweeping to limit airborne dust.

6.4 Reference to other sections: Use information obtained throughout this SDS to be fully prepared in case of accidental release.

Section 7: Handling and Storage

7.1 Precautions for safe handling: Avoid contact with skin, eyes, and clothing. Persons handling the product should wear recommended personal protective equipment (PPE) as noted in Section 8. Wash thoroughly with potable water and mild soap after handling. Avoid breathing dust. Ensure adequate ventilation (or a respirator should be worn if exposure limits are approached or exceeded). Use local exhaust or perform activities in well-ventilated areas. Water suppression may be used to limit airborne dusts. Avoid excessive agitation.

7.2 Conditions for safe storage, including any incompatibilities: Avoid incompatible materials such as powerful oxidizing agents like fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride they may cause fire and/or explosions.

7.3 Specific end uses: See Section 1 for intended uses.

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Section 8: Exposure Controls/Personal Protection

8.1 Control parameters: Note the limits shown below are for guidance only. Follow applicable regulations in your jurisdiction.

Substance Name	Source	Exposure Limit
Quartz, Silica (Crystalline Silica)	ACGIH	0.025 mg/m ³
	OSHA	(30 mg/m ³ ÷ (%SiO ₂ +2)) (T) (10 mg/m ³ ÷ (%SiO ₂ +2)) (R)
	NIOSH	0.05 mg/m ³
Calcium Carbonate	ACGIH	Removed TLV due to insufficient data. Use PNOC for exposure limit.
	OSHA	15 mg/m ³ (T) / 5 mg/m ³ (R)
	NIOSH	10 mg/m ³ (T) / 5 mg/m ³ (R)
Amorphous Silica (fused)	ACGIH	Removed TLV due to insufficient data. Use PNOC for exposure limit.
	OSHA	80 mg/m ³ / %SiO ₂ or 20 mppcf
	NIOSH	6 mg/m ³
	IDLH	3000 mg/m ³
Total Dust (or Particulates Not Otherwise Classified)	ACGIH	10 mg/m ³ (T) / 5 mg/m ³ (R)
	OSHA	15 mg/m ³ (T) / 5 mg/m ³ (R)
	NIOSH	10 mg/m ³ (T) / 5 mg/m ³ (R)

8.1.1 Currently recommended monitoring procedures: No recommendations.

8.1.2 Exposure guidelines for air contaminants, if any: See Section 8.1

8.1.3 DNELS and PNECS for exposure scenarios: Information not available at this time.

8.1.4 Control banding for risk management: Use good industrial hygiene practice, where appropriate PPE and use local ventilation.

8.2 Exposure Controls:

8.2.1 Appropriate engineering controls: Use local exhaust ventilation when possible to remove and prevent buildup of any dusts generated from the handling of this product. Water suppression may also be used to limit airborne dusts during application or use.

8.2.2 Individual protection methods: Use good industrial hygiene practices in handling this material. Eye wash stations should be available. Wash exposed skin thoroughly with potable water and mild soap after use. If any irritation or redness is noted, treat symptomatically or consult a doctor immediately. Wear gloves, safety glasses and protective clothing. Safety shoes (steel toe) should be worn when handling heavy materials that could be dropped on the feet. In case of eye contact with projectile debris or dust, flush with plenty of clean, potable water for at least 15 minutes. Remove contacts if easy to do so. Seek medical attention immediately. Avoid dust inhalation and direct contact with skin and eyes. Wash contaminated skin before eating, drinking or smoking.

Eye/Face: Use appropriate eye protection: glasses with side shields or goggles. Dust goggles or a face shield (preferred) should be worn during cutting, grinding crushing, or drilling activities.

Skin: Avoid contact by covering skin with protective clothing or protective suit. Wear leather heavy-duty gloves when handling the product. Wear eye protection. Wash exposed skin thoroughly with potable water and mild soap.

Respiratory: If airborne concentrations are above the applicable exposure limits, use NIOSH-approved respirator if qualified.

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Section 9: Physical and Chemical Properties

Physical State:	Granular Particles
Color:	Varying tan/gray/brown shades
Odor:	Odorless
Odor Threshold:	Not applicable
Melting Point:	Not applicable
Freezing Point:	Not applicable
Initial Boiling Point:	Not applicable
Flammability (solid, gas):	Not applicable
Lower and Upper Explosion Limits/Flammability Limit:	Not applicable
Flash Point:	Non-flammable
Auto-Ignition Temperature:	Not applicable
Decomposition Temperature:	Not evaluated
pH:	Not-applicable
Kinematic Viscosity:	Not applicable
Solubility:	Non-soluble
Partition Coefficient:	Not applicable
Vapor Pressure	Not applicable
Density (and/or Relative Density):	Not evaluated
Relative Vapor Density:	Not applicable
Particle Characteristics:	Variable sizes (fine or course grain sizes)

Section 10: Stability and Reactivity

10.1 Reactivity: May react with incompatible materials: fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

10.2 Chemical stability: Stable

10.3 Possibility of hazardous reactions: Avoid incompatible materials such as powerful oxidizing agents like fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride that may cause fire and/or explosions. Silica dissolves readily in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride. Avoid agitation. Calcium carbonate is incompatible with acids, alum, ammonium salts, mercury, hydrogen, fluorine, and magnesium.

10.4 Conditions to avoid: Avoid excessive handling which may generate dust concentration above permissible exposure limits.

10.5 Incompatible materials: Incompatible materials and possible hazardous reactions are detailed in Section 10.3.

10.6 Hazardous decomposition or byproducts: Highly improbable. Hazardous polymerization will not occur.

Section 11: Toxicological Information

11.1 Information on toxicological effects:

Acute Exposure and Symptoms:

Inhalation: Dust may cause irritation of the respiratory tract. May cause allergic or asthma-like respiratory reactions.

Skin Contact: May cause irritation, cuts or abrasions.

Eye Contact: May cause severe irritation, abrasions, redness, tissue destruction and permanent eye damage including blindness (in extreme cases).

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Section 11: Toxicological Information

Ingestion: Highly improbable. Virtually nontoxic. Ingestion of large amounts may cause gastrointestinal irritation, choking/blockage

Chronic Exposure:

Prolonged inhalation of dusts may cause damage to the respiratory tract.

Repeated inhalation of concentrations of dusts, especially respirable crystalline silica (quartz, cristobalite, tridymite) for periods as short as six months have caused acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Not all individuals with silicosis 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. Symptoms of silicosis may include, but are not limited to, the following: 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. Smoking may increase the risk of developing lung disorders, including emphysema and lung cancer. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

Several studies of persons with silicosis also indicate an increased risk of developing lung cancer, a risk that increases with duration of exposure. Many of these studies do not account for confounding variables for lung cancer, especially smoking.

Acute and Chronic Toxicity

Component Analysis: LD50/LC50 for exposure to particulate forms of the product's components.

Calcium Carbonate (1317-65-3): No data available

Silica, Quartz (Crystalline, Silica) (14808-60-7): LD₅₀ oral rat >500 mg/kg.

Component Carcinogenicity

Sand is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), the Occupational Safety and Health Administration (OSHA), the American Conference of Governmental Industrial Hygienists (ACGIH), or the State of California. In October 1996, an IARC Working Group re-assessing crystalline silica, a component of this product, designated crystalline silica as a carcinogen (Group 1). The NTP, ACGIH, and the State of California have listed crystalline silica (respirable size) as a known human carcinogen. This information is based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

Substance Name	IARC	NTP	ACGIH	OSHA	NIOSH	Cal. Prop. 65
Silica, Quartz (Crystalline, Silica) (14808-60-7)	G1	G2	A2	GS	Listed	YES ⁽⁶⁾
Calcium Carbonate (1317-65-3)	--	--	--	--	--	--
Amorphous Silica (fumed) (7631-86-9)	--	--	--	--	--	--

1. "--" – Not Listed
2. OSHA - Group S: OSHA Select Carcinogen
3. IARC - Group 1: Carcinogenic to humans
4. NTP - Group 2: Reasonably Anticipated to be Human Carcinogens (R)
5. ACGIH –A2: Suspected Human Carcinogen
6. California Prop. 65 Components: WARNING! This product contains a chemical known to the State of California to cause Cancer: Crystalline Silica.

Specific Target Organ Toxicity Single/Repeat Exposure – Respiratory System

Inhalation of dust can be a respiratory system irritant. Inhalation of high concentrations of dust, especially respirable crystalline silica (quartz, cristobalite, tridymite), for periods as short as six months has been known to cause acute silicosis. Silicosis is a rapidly progressive, incurable lung disease that can be fatal. Silicosis may have adverse effects on both the cardiac and pulmonary systems.

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Skin Sensitizer

Not expected to be a skin sensitizer.

Section 12: Ecological Information (non-mandatory)

12.1 Ecotoxicity:

General Product Information: Product when used as intended is not hazardous to the environment.

Component Analysis - Ecotoxicity : No ecotoxicity data are available for this product's components.

Environmental Fate: No information available for the product.

Section 13: Disposal Considerations (non-mandatory)

13.1 Waste treatment methods:

General Product Information: Whatever cannot be saved or recovered for recycling should be disposed of according to state and local regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14: Transport Information (non-mandatory)

US DOT Information

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

Section 15: Regulatory Information (non-mandatory)

15.1 Safety, health, and environmental regulation:

US Federal Regulations

General Product Information: All components are on the U.S. EPA TSCA Inventory List.

Component Analysis: Components of this product are not listed as hazardous under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312 Tier II Hazard Ratings: Crystalline Silica

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Reactivity Hazard	Sudden Release of Pressure
Yes	Yes	No	No	No

State Regulations

General Product Information: Other state regulations may apply. Check individual state requirements.

California Prop. 65 Components: WARNING! This product contains a chemical known to the State of California to cause Cancer: Crystalline Silica

Component Analysis – WHMISIDL:

Component	EINECS/EC	CAS	Minimum Concentration
Silica, Quartz (Crystalline, Silica)	231-545-4	14808-60-7	1%

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Section 15: Regulatory Information (non-mandatory)

Additional Regulatory Information

General Product Information: No additional information available.

Component Analysis – Inventory:

Component	EINECS/EC	CAS	TSCA	CAN	EC
Calcium Carbonate	207-439-9	1317-65-3	Yes	DSL	EINECS
Amorphous Silica	231-545-4 ⁽¹⁾	7631-86-9	Yes	DSL	EINECS
Silica, Quartz (Crystalline, Silica)	231-545-4	14808-60-7	Yes	DSL	EINECS

1. EINECS/EC number for Amorphous silica is a general silica number.

Section 16: Other Information

Other Information

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.

Key to Abbreviations and Acronyms:

- ACGIH: American Conference of Governmental Industrial Hygienists
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- CLP: Classification, Labelling, and Packaging
- DNEL: Derived no effect level
- DSL: Canada's Domestic Substances List
- EC: European Community
- EEC: European Economic Community
- EINECS: European Inventory of Existing Commercial Chemical Substances
- EPA: Environmental Protection Agency
- EU: European Union
- GHS: Globally Harmonized System of classification and labelling of chemicals
- IARC: International Agency for Research on Cancer
- IATA: International Air Transport Association
- ATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the International Civil Aviation Organization (ICAO)
- IMDG: International Maritime Code for Dangerous Goods
- IP: Inhalable Particles
- LC50: Lethal concentration in air fatal to 50 percent of test animals
- LD50: Lethal dose by mouth or other route to 50 percent of test animals
- LDLo: Lowest lethal dose
- MPPCF: Million Particles Per Cubic Foot
- NIOSH: National Institute for Occupational Safety and Health
- NJTSR: New Jersey Trade Secret Registry
- NOEC: No observed effects
- NOS: Not Otherwise Specified
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration (USA)
- PNEC: Predicted no effect concentration

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PPM: Parts per million
R: Respirable Particles
RID: Regulations Concerning the International Transport of Goods by Rail
STEL: Short term exposure limit
T: Total Dust
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act
TWA: Time weighted average

**** This is the end of SDS – Natural Sand ****