SAFETY DATA SHEET

1. Identification

Product identifier Trough Sand

Recommended use For Industrial Use Only. Used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction applications.

Recommended restrictions Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Supplier information

Company name: FRC Global
Address: 1000 N. West St.
Suite 1200 #3008
Wilmington, DE 19801
Product Support/Technical Services
Phone: (514) 931-5711
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Technical Services: (514) 931-5711
Contact E-Mail: LadleDr@FRCglobal.com

2. Hazard(s) identification

Hazard Classification: Not classified for physical or health hazards under GHS.

Hazard Identification:

Eye Damage/Irritation	Category 2
Skin Corrosion/Irritation	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 3 – Respiratory
Specific Target Organ Toxicity - Repeated Exposure	Category 1 – Respiratory
Carcinogenicity	Category 1A

Label elements

Signal word Danger.

Hazard Statements (GHS-US):

H302: Harmful if swallowed.
H318: Causes serious eye damage.

H335:	May cause respiratory irritation.
H350:	May cause cancer through inhalation.
H372:	Causes damage to lungs through prolonged or repeated exposure by inhalation.

Precautionary Statements: (GHS-US):

P202:	Do not handle until all safety precautions have been read and understood.
P260:	Do not breathe dust.
P264:	Wash hands, forearms, and face thoroughly after handling.
P270:	Do not drink, eat, or smoke while using this product.
P271:	Use only outdoors or in a well-ventilated area.
P280:	Wear protective gloves/protective clothing/eye protection/face protection.
P331:	DO NOT INDUCE VOMITING.

Hazard(s) not otherwise Classified (HNOC)

No data available.

Supplemental information

Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Overexposure to the respirable dust of crystalline silica (quartz or cristobalite, less than or equal to 5 microns in size) may lead to silicosis in humans, which is a progressive and irreversible lung disease. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

3. Composition/information on ingredients

Chemical Name	Common Name/Synonyms	CAS Number	%
Silica	Quartz	14808-60-7	*

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Move the person to fresh air at once. Seek medical attention for discomfort or persistent coughing. If breathing has stopped, perform CPR.

Skin contact

Wash with soap and water. Consult physician if irritation continues.

Eye contact

Immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

Ingestion

DO NOT INDUCE VOMITING. If conscious, have the person drink plenty of water. Seek medical attention immediately.

Most important symptoms/effects, acute and delayed

Eye irritation, skin irritation, and respiratory tract irritation

Indication of immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have the product, container and/or this Safety Data Sheet on hand for medical staff. Physicians should treat symptomatically.

General information If concerned: Get medical advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (have a product container or label at hand).

5. Fire-fighting measures

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Not available.

Specific hazards arising from the chemical

Non-combustible.

Advice for Firefighters

Precautionary Measures Exercise caution when fighting any chemical fire.

Firefighting Instructions Material poses no fire-related hazard.

Protection During Firefighting

The use of a SCBA is recommended to limit exposure to combustion.

Other Information Keep run-off water out of sewers and water sources.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Wear protective equipment. Avoid inhalation, and eye and skin contact. Avoid generating airborne dust. Wear appropriate protective clothing as described in section 8. Ensure that air-handling systems are operational. Ensure adequate ventilation.

Methods and materials for containment and cleaning up

Keep in suitable closed containers for disposal. Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e. clearing dust surfaces with compressed air). Collect solids in powder form using a vacuum with a HEPA filter. Evacuate personnel to a safe area.

Environmental precautions Prevent from reaching drains, sewers, or waterways. Collect contaminated soil for characterization as per Section 13. Should not be released into the environment.

Reference to other sections Prevent from reaching drains, sewers, or waterways. Collect contaminated soil for characterization as per Section 13. Should not be released into the environment.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Store in cool, dry conditions in well-sealed containers. Store with like hazards.

8. Exposure controls/personal protection

Occupational exposure limits

US OSHA Table Z-3 (29 CFR 1910.1000)

Components	*Type*	*Value*	*Form*
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

US ACGIH Threshold Limit Values

Components	*Type*	*Value*	*Form*
Quartz (CAS 14808-60-7)	TWA	0.025mg/m3	Respirable fraction

US NIOSH: Pocket Guide to Chemical Hazards

Components	*Type*	*Value*	*Form*
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Biological limit values

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

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) 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. If

	engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation that may generate dust, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Safety glasses with side shields should be worn. In windy conditions, or if work activity generates elevated airborne dust levels, dustproof or chemical goggles are recommended. Contact lenses should not be worn.
Skin protection	When there is a risk of skin contact, wear appropriate clothing and gloves to prevent contact.
Hand protection	Wear appropriate chemical-resistant gloves.
Other	Use of an impervious apron is recommended.
Respiratory protection	If exposure limits are exceeded, an approved Particulate Respirator, or supplied air respirator appropriate for the airborne concentrations should be used. Selection and use of the respiratory protective equipment must be in accordance with applicable regulations and good industrial hygiene practices.
Other recommended protection	
	An emergency eye wash fountain and shower are recommended.

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.

9. Physical and chemical properties

Appearance	
Physical state	Solid.
Form	Solid.
Color	Light gray to brown material.
Odor	Odorless.
Odor threshold	Not available.
pH at 25 degrees C	Neutral.
Melting point/freezing point	Not available
Initial boiling point and boiling range	
	>1000°C
Flash point	Not available.
Evaporation rate	Not available.

Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative Density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Chemical stability	The product is stable. Avoid contact with incompatible materials.
Possibility of hazardous reactions	No dangerous reaction is known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Aggregate dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.
Hazardous decomposition products	No hazardous decomposition products are known.
Hazardous polymerization	None.

11. Toxicological information

Information on likely routes of exposure

Inhalation	This product can cause severe irritation of the respiratory system.
Skin contact	Contact can cause severe irritation or burning of skin.
Eye contact	Contact can cause severe irritation or burning of the eyes, including permanent damage.
Ingestion	This product can cause severe irritation or burning of the gastrointestinal tract if swallowed.

Symptoms related to the physical, chemical, and toxicological characteristics

	Dusts may cause mechanical irritation to the eyes and skin. Ingestion may cause transient irritation of the throat, stomach, and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. Higher exposures may cause difficulty breathing, congestion, and chest tightness.
Information on toxicological effects	
Acute toxicity	Not available.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with the eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available.
Carcinogenicity	This product is not listed as carcinogenic by OSHA, IARC, NTP, ACGIH, or the EU Directives. This product may contain trace amounts of crystalline silica quartz which is listed by IARC as a carcinogen to Humans@ (Group 1) and known to be a human carcinogen@ by NTP (National Toxicology Program). In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicate dust, and organic fibers, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (SiO2) (CAS 14808-60-7)	1 Carcinogenic to humans.

US National Toxicology Program (NTP) Report on Carcinogens

Quartz (SiO2) (CAS 14808-60-7)	Known To Be Human Carcinogen.

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

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Developmental effects

Quartz (SiO2)	0

Developmental effects - EU category

Quartz (SiO2)	0

Embryotoxicity

Quartz (SiO2)	0

Reproductively

Quartz (SiO2)	0

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects This product contains trace amounts of crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica can cause silicosis, a serious lung disease.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. The material shows no bioaccumulation effects or food chain concentration toxicity.

Persistence and degradability No data is available on the degradability of this product.

Bio-accumulative potential No data available.

Mobility in soil No data available.

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

13. Disposal considerations

Disposal instructions This product, in its present state, when discarded or disposed of, is not hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Hazardous waste code Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

Waste from residues / unused products

This product does not meet the criteria for hazardous waste. Dispose in accordance with all federal, provincial, and/or local regulations. Do not dispose of it in waterways or sewage. Do not dispose of household garbage.

Contaminated packaging — Not available.

14. Transport information

DOT

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

Packaging Group — Not classified.

Bulk Transport — Not applicable.

15. Regulatory information

US federal regulations — This product is considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program.

CERCLA Hazardous Substance List (40 CFR 302.4)

This product is not listed as a CERCLA hazardous substance.

SARA 304 Emergency release notification

Not regulated.

EPRCA — This product has been reviewed according to the EPA Hazard Categories

SARA Title III — Promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered a hazardous chemical and a delayed health hazard.

EPRCA SARA Section 313

This product contains none of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

RCRA — If discarded in its purchased form, this product would not be a hazardous waste either by listing or characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA — Crystalline silica is exempt from reporting under the inventory update rule.

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 313 (TRI reporting)

Chemical Name	*CAS number*	*% by wt.*
Aluminum Oxide (Non-Fibrous)	1344-28-1	*

Other federal regulations

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 California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US Massachusetts RTK - Substance List

Quartz (SiO2) (CAS 14808-60-7)

US New Jersey Worker and Community Right-to-Know Act

Quartz (SiO2) (CAS 14808-60-7)

US Pennsylvania Worker and Community Right-to-Know Law

Quartz (SiO2) (CAS 14808-60-7)

US California Proposition 65

This product contains a chemical known to the State of California to cause cancer.

US California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (SiO2) (CAS 14808-60-7) Listed: October 1, 1988

16. Other information, including date of preparation or last revision

OSHA:	Occupational Safety and Health Administration (US)
ACGIH:	American Conference of Governmental Industrial Hygienists
CERCLA:	Comprehensive Environmental Response, Compensation, and Liability Act
WHMIS:	Workplace Hazardous Materials Identification System (Canada)
NIOSH:	National Institute for Occupational Safety and Health
HMIS:	Hazardous Materials Identification System (US)
TSCA:	Toxic Substances Control Act
IARC:	International Agency for Research on Cancer
CPR:	Controlled Products Regulations
DSL:	Domestic Substances List
CAS:	Chemical Abstract Service
RCRA:	Resource Conservation and Recovery Act
SARA:	Superfund Amendments and Reauthorization Act

This information is supplied to be informative and to alert the user of the material. The ultimate compliance with federal, state, and/or local regulations concerning the use of this

material, or compliance with respect to product liability, rests solely upon the purchaser thereof.

Prepared by: FRC Global
Date: April 2021

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End of Safety Data Sheet