



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

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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 outdoor 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)
Supplemental information**

No data available.

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 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 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 product container and/or this Safety Data Sheet on hand for medical staff. Physician 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 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	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, 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 vacuum with HEPA filter. Evacuate personnel to safe area.

Environmental precautions

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization as per Section 13. Should not be released into environment.

Reference to other sections

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization as per Section 13. Should not be released into 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)

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Quartz (CAS 14808-60-7)	TWA	0.025mg/m ³	Respirable fraction

US. NIOSH: Pocket Guide to Chemical Hazards

<i>Components</i>	<i>Type</i>	<i>Value</i>	<i>Form</i>
Quartz (SiO₂) (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

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 which may generate dusts, 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, dust proof 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
Other

Wear appropriate chemical resistant gloves.
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 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 eyes, including permanent damage.

Ingestion This product can cause severe irritation or burning of gastrointestinal tract if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics:

Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of 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 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 a 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, silicates 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

Embryo toxicity

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

Eco toxicity 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 a 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 of a hazardous waste. Dispose in accordance with all federal, provincial, and/or local regulations. Do not dispose in waterways or sewage. Do not dispose with 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)

<i>Chemical Name</i>	<i>CAS number</i>	<i>% by wt.</i>
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 respects to products liability, rest solely upon the purchaser thereof.

Prepared by: FRC Global
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End of Safety Data Sheet