

Safety Data Sheet (SDS)

Read complete SDS prior to using product.

Micro Milling Thin Set

1. PRODUCT IDENTIFICATION

Product Trade Name: Micro Milling Thin Set

Name, Address, Phone Number of the Manufacturer

Company: MICRO MILLING LIMITED
 Claxton Bay P.O. Box 4235,
 Plaisance Park Industrial Estate,
 Pointe-a-Pierre,
 Trinidad & Tobago, W.I.
 Telephone #: 1(868) 659-4060
 Website: www.micromillingtt.com

Recommended Use: Installation of ceramic, cement, quarry and clay tiles, pavers and natural stone on concrete surfaces.

Restrictions on Use: The presence of respirable dust and respirable crystalline silica require appropriate training in the proper use and handling of this product.

2. HAZARD IDENTIFICATION

GHS Hazard Symbols



Physical Hazards
Health Hazards

Not Classified	
Skin Irritation	Category 2
Eye damage/irritation:	Category 1
Sensitisation, Skin	Category 1
Carcinogenicity	Category 1A
Specific Target Organ toxicity, single exposure	Category 3 (respiratory tract irritation)
Specific Target Organ toxicity, repeat exposure	Category 2 (lung)

Hazard Statements

Corrosive. Causes skin irritation. May cause allergic skin reaction.
 Causes eye damage. In case of contact with eyes rinse repeatedly with water and call physician.
 May be harmful if swallowed.
 Contains free silica (Crystalline quartz). Prolonged/repeated breathing of dust may cause delayed lung injury (silicosis). May cause cancer.

Precautionary Statements

Prevention Do not handle until all safety precautions have been read and understood.
 During mixing or application avoid contact with eyes and skin. In case of contact with eyes rinse repeatedly with water and call a physician. Do not breathe dust. Wash thoroughly after handling.
 Contaminated clothing should not be allowed out of the workplace.

Use personal protective equipment (gloves, boots, goggles, and respirator/mask) when handling or using this product.
Follow OSHA safety and health standards for crystalline silica (quartz).

- Response** If on skin: Wash with soap and water. If skin irritation or rash occurs, seek medical advice/attention.
If in eyes: Wash eyes immediately and repeatedly with water and seek medical attention.
If ingested: Do not induce vomiting. Rinse mouth & drink water. Seek immediate medical attention.
If inhaled: Remove person immediately to fresh air and ensure comfortable breathing resumes.
Give artificial respiration if needed and seek medical attention.
- Storage** Store off the ground, on pallets in original unopened packages in a dry, well ventilated area for the best life expectancy. Should not be exposed to water, direct sunlight and /or damp conditions prior to use.
- Disposal** Dispose of contents/containers in accordance with local/regional/international regulations.
- Hazards not otherwise classified (HNOC)**
None known.
- Supplemental information**
Product becomes alkaline when exposed to moisture.

3. COMPOSITION /INFORMATION ON INGREDIENTS

List of mixture components

Chemical Name	CAS Number	%
Silica Sand, Crystalline Silica (Quartz)	14808-60-7	60- 70
Portland Cement	65997-15-1	25- 35

Other components below reportable levels

Composition: All concentrations are in percent by weight

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact:

Flush eyes immediately washing with cool water for a few minutes while holding eyelid open. Remove contact lens if worn and rinse repeatedly with water. If irritation persists, seek medical attention.

Skin Contact:

Remove contaminated clothing if any and wash exposed skin with soap and water immediately. If irritation persists, seek medical attention.

Ingestion:

If ingested do not induce vomiting. Rinse mouth with water. Drink water. Seek immediate medical attention

Inhalation:

If dust concentrations are exceeded remove the person immediately to fresh air. Seek medical attention as needed if distress persists.

Gross Inhalation:

If there is a gross inhalation of crystalline silica (quartz), remove the person immediately to fresh air. If not breathing, trained personnel should initiate artificial respiration as needed. Obtain immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: Will not burn except under extreme temperatures.

Extinguishing Media:

Water spray. Water Fog. Carbon dioxide (CO²). Dry Chemical Powder. Foam
Other appropriate fire extinguishing media.

Unsuitable Extinguishing Media: None in particular

Specific hazards arising from the product's chemical composition:

Burning produces heavy smoke.

Hazardous combustion products:

Hazardous combustion products may include Carbon Oxides.

Special protective equipment and precautions for firefighting personnel:

Wear standard fire-fighting gear with suitable self-contained breathing apparatus

Move undamaged containers or bags from immediate hazard area if it can be safely done

Explosive properties: No unusual explosion hazards noted

Oxidising properties: None noted

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away, cordon off area if possible. Ensure appropriate PPE and clothing is worn by personnel before and during clean up

Steps to be taken in case material is released or spilled:

Use appropriate respiratory protection if dry. Use NIOSH/OSHA approved respirator if dust exposure level exceeds the exposure limit.

Use appropriate boots and gloves if wet. Do not handle damaged containers or spilled materials unless wearing appropriate protective clothing.

Methods and Materials for containment and clean up**Spillage when dry**

Limit dust with water spray. Promptly clean by scoop, shovel and/ or vacuum if spilled when dry.

Provide ventilation.

Spillage when wet

Contain spill by dykeing with inert absorbent materials to control material flow and if possible, return to batch mix if material is uncontaminated.

If contaminated, place in an appropriate container for waste or disposal. Do not dispose of via drainage pipes, canals, drains or waterways.

Following removal of spilled material, wash area with water.

Refer to State and Local Regulations for handling solid waste.

7. HANDLING AND STORAGE**Precautions for safe Handling & Use**

Use only in applications as stated on the label.

Use appropriate bending and lifting techniques when handling unopened bags.

Ensure bag/container is properly closed after use

Avoid skin and eye contact. Always wear appropriate personal protective equipment (PPE) - respirator, gloves, goggles or protective glasses and boots - when moving or using product

Ensure adequate ventilation in work area. Ventilate with fresh air, including opening doors and windows should be observed during any floor/wall tile installation.

Operate HVAC systems at 100% fresh air intake before, during and after installation to eliminate lingering odors or particulate matter.

Do not eat drink or smoke while working. Do not take internally.

Precautions for safe Storage

Store unopened bags on pallets in original packaging in a dry and cool location

Should not be exposed to water, direct sunlight and damp prior to use

Do not store opened bags

Incompatible materials:

Contact with powerful oxidising agents such as fluorine, chlorine, tri-fluoride and oxygen di-fluoride may cause fires.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control Parameters

List of components with OEL

Component	OEL Type	Long Term mg/m ³
Silica Sand	ACGIH	10
Portland Cement	OSHA	15

U.S. OSHA Table Z-1 Limits for air contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Portland Cement (CAS 65997- 15-1)	PEL	5mg/m ³	Respirable fraction
		15 mg/m ³	Total dust

US OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Portland Cement (CAS 65997- 15-1)	TWA	50 mppcf	Respirable fraction
		0.3mg/m ³	Total dust
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.1mg/m ³	Respirable fraction
		2.4 mppcf	Respirable fraction

US. NIOSH. Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Portland Cement (CAS 65997- 15-1)	TWA	5mg/m ³	Respirable fraction
		10 mg/m ³	Total
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.05mg/m ³	Respirable fraction

US ACGIH Threshold Limit Values

Components	Type	Value	Form
Portland Cement (CAS 65997- 15-1)	TWA	1mg/m ³	Respirable fraction
		0.025mg/m ³	Respirable fraction
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.025mg/m ³	Respirable fraction

Permissible Exposure Limits

OSHA PEL: Exposure to airborne crystalline silica shall not exceed an 8-hour time-weighted average (TWA) limit as stated in 29 CFR 1910.1000 Table Z-3.

Appropriate Engineering Controls:

Ensure good general ventilation. Use process enclosures, exhaust ventilation and other controls if needed to control airborne contaminants. Ventilation should be adequate to remove and prevent build-up of any dust generated during handling or use.

Individual Protection Measures:

Eye protection: Wear safety glasses or protective goggles that are close fitting to avoid splashed droplets
 Protection for hands: Use protective gloves of leather, neoprene or nitrile rubber gloves for hands
 Protection for skin: Clothing of cotton, denim or rubber that provides comprehensive protection
 Respiratory protection: Use appropriate Occupational Safety & Health approved respirator or dust mask for adequate protection. e.g. NIOSH approved (30 CFR 11)
 Ensure proper ventilation. Open all available windows and entrances to ensure good ventilation.



Safety Gloves



Safety Goggles



Safety Boot



Dust Respirator

General Hygiene: Periodically wash areas contacted by wet or dry cement products. If clothing becomes soiled with wet or dry cement products, it should be removed and replaced with clean dry clothing. Wash contaminated clothing as soon as possible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Product Name: Micro Milling Thin Set
Physical State: Solid
Form: Powder- Fine Textured Powder.
Colour: Grey.
Odour: General cement like odour.
Odor threshold: Not available.
Vapor Pressure: Not Available.
Vapour density: Not Available.
pH: 11.0-13.0
Relative density: Not Available
Melting Point/ Freezing Point: Not Available.
Solubility (in water): Insoluble
Initial boiling point and boiling range: Not Available
Flash Point: Not Available
Evaporation Rate: Not Available
Flammability (solid/gas): Not Available.
Partition coefficient (n-octanol/water): Not Available.
Auto ignition temperature: Not Available.
Decomposition temperature: Not Available.
Viscosity: Not Available.
Explosive Properties: Non-explosive.
Oxidising properties: Non oxidising.
Solid/gas flammability: Not Available.

10. STABILITY AND REACTIVITY

Reactivity:

Stable under normal conditions

Chemical Stability:

Stable under normal conditions

Possibility of Hazardous reactions:

None known

Conditions to avoid:

Avoid contact with water or moisture. Once bag/container is opened contents should be used as quickly as possible. Close bags after use to prevent the absorption of moisture and/or contaminants.

Incompatibility (materials to avoid):

Avoid contact with strong oxidising agents, powerful acids and strong bases.

Avoid agents such as fluorine, chlorine, tri fluoride and oxygen di-fluoride. Wet cement-based mixtures are alkaline and is not compatible with acids, aluminium or ammonium.

Hazardous decomposition products: None known

Hazardous Polymerisation: None known

11 – TOXICOLOGICAL INFORMATION

Toxicological information via likely routes of exposure

Inhalation:	Dust irritates the respiratory system, may cause coughing, sneezing and difficulty in breathing.
Ingestion:	Swallowing may cause gastrointestinal irritation
Skin Contact:	Causes skin irritation. May cause allergic reaction
Eye contact:	Causes serious eye irritation

Symptoms rel. to the physical, chemical and toxicological effects:

Skin Contact:	May cause skin irritation, including burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe skin burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous contact with the skin.
Eye Contact:	Causes serious eye irritation. Symptoms include stinging, tearing, redness, swelling and blurred vision. Permanent damage to eyes can result if exposure is prolonged
Inhalation:	Dust irritates the respiratory system, may cause coughing, sneezing, respiratory inflammation and difficulty in breathing.
Ingestion:	Swallowing may cause gastrointestinal irritation, stomach distress, nausea or vomiting.

Symptoms rel. to the physical, chemical and toxicological effects:

Rash, coughing, Irritant effects. Symptoms include stinging, tearing, redness, swelling and blurred vision. Permanent damage to eyes can result if exposure is prolonged.

Acute Toxicity:	May cause respiratory irritation
Skin Corrosion/ Irritation:	Yes
Eye damage /irritation:	Yes
Respiratory Sensitisation:	No data available
Skin Irritation:	May cause allergic reaction

Germ cell mutagenicity: No data available to indicate the product or any component present at greater than 0.1% are mutagenic or geno-toxic.

Toxicological information on the main components of the mixture:

Silica Sand (Crystalline Silica) a) acute toxicity LD50 Oral rat = 500mg/kg

Carcinogenicity: Silica Sand (Crystalline Silica)

Can cause cancer by prolonged repeated inhalation. This product has the potential to generate respirable dust during handling and use. Dust may contain respirable crystalline silica. Crystalline silica has been classified by the IARC, NTP and ACGIH as a known human carcinogen and suspected human carcinogen respectively. Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by the inhalation of mineral dust which can lead to fibrotic changes to the lung tissue or silicosis, a respiratory disease caused by the inhalation of silica dust which can lead to the inflammation and fibrosis of the lung tissue. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

May cause delayed lung injury.

IARC Monographs. Overall evaluation of Carcinogenicity

Crystalline Silica (CAS 14808-60-7) 1- Carcinogenic to humans

NTP Report on Carcinogens

Crystalline Silica (CAS 14808-60-7) Known to be a Human Carcinogen

OSHA Specifically Regulated Substances (29 CFR 1810.1001-1050)

Not Regulated

Reproductive toxicity: This product is not expected to cause reproductive or developmental defects

Specific Target Organ toxicity (single exposure): May cause respiratory irritation

Specific Target Organ toxicity (repeated exposure): May cause damage to lungs

Aspiration hazard: Not a known aspiration hazard

Chronic Effects:

The adverse health effects associated with exposure to crystalline silica (quartz) which can include silicosis, lung cancer, scleroderma, tuberculosis, pneumoconiosis and nephrotoxicity result are chronic effects associated with long term exposure.

12– ECOLOGICAL INFORMATION

Toxicity: Use good working practices and keep good workplace sanitation to minimize /or eliminate the contamination of the environment by the product.
 There is no chronic or acute ecological impact when product is used according to directions.
 The normal dilution of this product during cleanup with water after use, and which may make its way to drains, sewers or watercourses is generally not considered harmful. Nevertheless, the manufacturer advises this practice should be limited or avoided if possible.

Eco Toxicological information:

List of components with eco-toxicological properties:

Quantity	Component	Ident. Numb	Ecotoxicity Info.
60- 70 %	Crystalline Silica (Quartz)	CAS: 14808-60-7	Aquatic acute toxicity: LC50 carp >10000,00000 mg/ L72h

Persistence and Degradability: No data available.

Bioaccumulation Potential: No data available.

Soil to Groundwater Contamination: The product is not mobile in soil.

Other Adverse Effects: No other adverse effects including ozone depletion, photochemical ozone depletion, endocrine disruption or global warming potential is expected.

13 – DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste must be handled in accordance with any and all applicable state, provincial, federal, county and/or local municipality regulations.

Consult local authorities before disposal of product. Certified disposal agents and methods will need to be approved by relevant authorities. (e.g. Trinidad & Tobago- CEC clearances issued from the EMA to disposal agents is required)

Do not dispose of unused or contaminated product in drains, watercourses and sewer systems.

14 –TRANSPORT INFORMATION

DOT	Not classified as dangerous goods
IATA	Not classified as dangerous goods
IMDG	Not classified as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and The IBC Code Not applicable

15 – REGULATORY INFORMATION

Country Regulations

USA:

US Federal Regulations: This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200
 TSCA Section 12b Export Notification (40 CFR 707, Substances Control Act – Not regulated.
 OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) – Not regulated.
 CERCLA- Not listed as a hazardous substance (40 CFR 302.4) – Not listed.

Superfund Amendments & Reauthorization Act of 1986 (SARA):

Hazard Categories: Immediate Hazard- Yes
 Delayed Hazard- Yes
 Fire Hazard- No
 Pressure Hazard- No
 Reactivity Hazard- No

SARA 302 Extremely Hazardous Substance – Not listed.

SARA 311/312 Hazardous Chemical – Yes.

SARA 313 (TRI reporting) – Not regulated.

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

USA & Puerto Rico:

Toxic Substances Control Act (TSCA) Inventory – Not listed.

Europe:

European List of Notified Chemical Substances- Not listed.

European Inventory of Existing Commercial Chemical Substances- Listed.

Trinidad & Tobago:

National EMA – Certified as substance requiring Environmental Certification Regulation – Not listed.

Ministry of Health- Pesticides & Toxicological Inspectorate – Not listed.

Summary of abbreviations and acronyms used in the Safety Data Sheet

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

CEC: Certificate of Environmental Clearance

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulation by the “International Air Transport Association” (IATA)

IMDG: International Maritime Code for Dangerous Goods

EMA: Environmental Management Agency, Trinidad & Tobago

GHS: Globally Harmonised System of Classification and Labeling of Chemicals

NFPA: National Fire Prevention Association

OEL: Occupational Exposure Limit

TLV: Threshold Limit Value

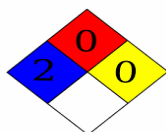
TWATLV: Threshold Limit Value for the Time Weighted Average 8-hour day (ACGIH Standards)

STEL: Short Term Exposure Limit

STOT: Specific Target Organ Toxicity

16 – OTHER INFORMATION

HMIS Ratings NFPA Health: 2= Moderate
 NFPA Flammability: 0
 NFPA Physical Hazard: 0
 NFPA Special Risk: n.a.



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Version # 02

Disclaimer:

This Safety Data Sheet (SDS) has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information and guidelines for the safe and proper use of our product. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Micro Milling Limited assumes no responsibility for personal injury or property damage to vendees, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of the product. Further the manufacturer warrants that this product shall be of saleable quality when used in accordance with stated instructions. This product is not warranted as suited for any purpose other than the general use(s) for which it is intended.