

# Material Safety Data Sheet

## SCI-TZ Powder

Date of Preparation: September 1998

Revision: November 2005

### Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** SCI-TZ

**Chemical Formula:** Al<sub>2</sub>O<sub>3</sub> and MgSiF<sub>6</sub> 6H<sub>2</sub>O

**CAS Number:** Mixture (See ingredients)

**Other Designations:** None

**General Use:** Powder used for polishing terrazzo surfaces.

**Manufacturer:** Stone Care International Inc. P.O. Box #703, Owings Mills, Maryland 21117-0703

**Phone:** 410-783-0045

**24-Hour Phone Number for Medical & Spill Emergencies:** 1-800-535-5053

### Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt.
Aluminum Oxide	1344-28-1	60-80 %
Magnesium Fluorosilicate	16949-65-8	20-40 %

Ingredient	CAS #	OSHA		ACGIH		NIOSH		IDLH
		PEL	STEL	TLV	STEL	REL	STEL	
Aluminum Oxide	1344-28-1	15mg/m <sup>3</sup> (Total Dust) 5mg/m <sup>3</sup> (respirable)	NE	10 mg/m <sup>3</sup>	NE	NE	NE	NE
Magnesium Fluorosilicate	16949-65-8	2.5 mg/m <sup>3</sup> (as F)	NE	2.5 mg/m <sup>3</sup> (as F)	NE	NE	NE	NE

### Section 3 - Hazards Identification

#### Potential Health Effects

**Primary Entry Routes:** Inhalation, Eyes, Contact with skin

**Target Organs:** Lungs, skin, eyes

#### Acute Effects:

**Inhalation:** May cause upper respiratory tract irritation, burns, coughing and sneezing.

**Eye:** May cause mild irritation, especially when wet

**Skin:** May cause burning sensation, redness and irritation to the skin

**Ingestion:** Ingestion may be harmful or fatal.

<b>HMIS</b>	
<b>H</b>	2
<b>F</b>	0
<b>R</b>	0
<b>PPE†</b>	E
†Sec. 8	

**Carcinogenicity:** IARC, NTP, and OSHA do not list the ingredients in this product as carcinogens.

**Medical Conditions Aggravated by Long-Term Exposure:** Asthma, chronic lung disease, dermatoses or any disorder affecting the mucus membranes.

**Chronic Effects:** Alumina is a low health risk by inhalation and should be treated as a nuisance dust. This product may contain silicates <1% by weight, and includes metal silicates, amorphous, and crystalline silica. Based on the chemistry, crystalline silica is not expected to be present in this product.

Chronic over-exposure to magnesium fluorosilicate can cause fluorosis which may result in weight loss, brittle bones, anemia, weak or stiff joints and internal bleeding. Long-term skin exposure to this product is likely to cause dermatitis.

### Section 4 - First Aid Measures

**Inhalation:** Remove person to fresh air. If symptoms persist, obtain immediate medical attention. Keep affected person at rest.

**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, lifting the lids to ensure contact with all tissue of lids and eyes. Medical attention by a eye specialist should be provided as soon as possible.

**Skin Contact:** Promptly wash exposed areas with soap and water for at least 15 minutes. If wetted product soaks through clothing, remove promptly and wash all exposed areas. Consult a physician promptly if irritation persists after washing.

**Ingestion:** If swallowed, dilute with large amounts of water. Do not induce vomiting. Consult a physician or poison control immediately. Never give anything by mouth to a convulsing or unconscious person.

**Note to Physician:** Delayed onset of pulmonary edema is possible. Observation 48-72 hours following exposure is recommended.

### Section 5 - Fire-Fighting Measures

**Flash Point:** Non-Flammable

**Flash Point Method:** NA

**Burning Rate:** NA

**Autoignition Temperature:** NA

**LEL:** NA

**UEL:** NA

**Flammability Classification:** NA

**Extinguishing Media:** Use extinguisher applicable to surrounding fire.

**Unusual Fire or Explosion Hazards:** None

**Fire-Fighting Equipment:** Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus (SCBA) and full protective clothing when fighting a fire involving this product due to the generation of highly toxic fluoride gas in heat conditions. Water in contact with fluoride gas will become hydrofluoric acid which is highly corrosive, can be absorbed through the skin resulting in poisoning.



### Section 6 - Accidental Release Measures

**Initial Actions:** Keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind. Ventilate spill area.

**Small Spills:** Wear appropriate protective equipment. Small spills can be cleaned up using dust pan and brush. Use sweeping compound to prevent dust generation. Respiratory protection may be needed. Place spilled material into a clean dry container and cover. Wash down spill area. Wash dust pan and brush.

**Large Spills:** Wear appropriate protective equipment. Respiratory protection is recommended for clean-up operations. Exposures must be determined for proper respiratory protection selection or use of a maximum protective respiratory protection is indicated. OSHA requires that employees using this material be trained properly under (29 CFR 1910.1200 and/ or 29 CFR 1910.120) depending on the nature of the clean-up operation. Carefully shovel material and place in clean dry container and cover. Clean up using dry procedures, avoid dusting. If reuse or recycling is not an option, material may be disposed of in an industrial landfill.

### Section 7 - Handling and Storage

**Handling Precautions:** Review MSDS before use. Avoid contact with skin and clothing. Avoid inhaling dust. Keep container closed when not in use. Protective equipment should always be worn.

**Storage Requirements:** Keep material in a dry, cool place.

### Section 8 - Exposure Controls / Personal Protection

**NOTE: HMIS** PPE codes shown on the label in section 3 are maximum expected protection. More or less protection may be appropriate depending on the conditions of use. Each user must determine the appropriate code based on their use as recommended by the producer of the HMIS label.

**Engineering Controls:**

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:** Keep container closed when not in use. Avoid creating dust conditions.

**Respiratory Protection:** NIOSH approved HEPA respirator if overexposure potential exists. Respiratory protection must provide the appropriate protection factors based on exposure levels. Respirator use by employees is regulated by OSHA under 29 CFR 1910.134.

**Protective Clothing/Equipment:** Wear appropriate gloves to avoid direct skin contact. Goggles are recommended to prevent direct eye contact. Impervious gloves (rubber or neoprene) and clothing (lab coat/coveralls, and waterproof boots when wet) should be worn. Protect open wounds.

**Other precautions:** Do not eat or drink while using this compound, and keep out of reach of children and animals.

### Section 9 - Physical and Chemical Properties

<b>Physical State:</b> Solid	<b>Water Solubility:</b> ND
<b>Appearance and Odor:</b> White powder Slight odor.	<b>Other Solubilities:</b> Acids or alkalis
<b>Odor Threshold:</b> ND	<b>Boiling Point:</b> NA
<b>Vapor Pressure:</b> NA	<b>Melting Point:</b> 100 °F (lowest of two components)
<b>Vapor Density (Air=1):</b> Not applicable	<b>Viscosity:</b> NA
<b>Formula Weight:</b> ND	<b>Refractive Index:</b> ND
<b>Density:</b> ND	<b>Surface Tension:</b> NA
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b> Approx: 3.2	<b>% Volatile:</b> NA
<b>pH:</b> ND	<b>Evaporation Rate:</b> NA

### Section 10 - Stability and Reactivity

**Stability:** SCI-TZ is stable at room temperature in closed containers under normal storage and handling conditions. Do not expose to high temperatures (>100oF / 212oF) as toxic and irritating fluoride gas will be created.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Chlorine trifluoride and ethylene oxide will react violently with this product. Do not store or mix with acids or chlorine bleach.

**Conditions to Avoid:** A rise in temperature may result from contact with water.

**Hazardous Decomposition Products:** This product may release fluoride gas when involved in high heat or fire situation.

**Section 11 - Toxicological Information**

**Toxicity Data:\***

**Inhalation Effects:**

No LC<sub>50</sub> found.

**Oral Effects:**

LD<sub>50</sub> for Magnesium Fluorosilicate < 200 mg/kg (rat). The aluminum oxide component of this product is not readily absorbed through the intestinal tract and no LD<sub>50</sub> has been established.

\* See NIOSH, RTECS (BD1200000), for additional toxicity data for aluminum oxide.

There is no specific RTECS report for magnesium fluorosilicate.

**Section 12 - Ecological Information**

**Ecotoxicity:** Information not available.

**Section 13 - Disposal Considerations**

**Disposal:** Collect in containers, bags, or covered dumpster boxes. Used or unused material should be disposed of at a hazardous waste collection center for household use. Industrial users should have material tested to determine disposal requirements. Do not dispose spilled material down drains, storm sewers, or natural waterways.

**Disposal Regulatory Requirements:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations for disposal.

**Section 14 - Transport Information**

**DOT Transportation Data (49 CFR 172.101):**

**Shipping Name:** ND  
**Shipping Symbols:** ND  
**Hazard Class:** ND  
**ID No.:** ND  
**Packing Group:** ND  
**Label:** ND  
**Special Provisions (172.102):**ND

**Packaging Authorizations**  
**a) Exceptions:**  
**b) Non-bulk Packaging:**  
**c) Bulk Packaging:**

**Quantity Limitations**  
**a) Passenger, Aircraft, or Railcar:**  
**b) Cargo Aircraft Only:**

**Vessel Stowage Requirements**  
**a) Vessel Stowage:**  
**b) Other:**

**Section 15 - Regulatory Information**

**EPA Regulations:**

RCRA Hazardous Waste Number: Not listed  
 RCRA Hazardous Waste Classification (40 CFR 261.): Not classified  
 CERCLA Hazardous Substance (40 CFR 302.4) Not listed  
 CERCLA Reportable Quantity None  
 SARA 311/312 Codes: Immediate (acute), if particulates are generated during processing  
 SARA Toxic Chemical (40 CFR 372.65): Not listed  
 SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

**CA Proposition 65 List:** NA

**PA Right-to-Know:** This product is listed as an environmental hazard. (E).

**OSHA Regulations:**

Air Contaminant (29 CFR 1910.1000, Table Z-1): Alpha-Alumina Total Dust (15 mg/m<sup>3</sup>) and Respirable Dust (5 mg/m<sup>3</sup>). Magnesium Fluorosilicate is regulated as Flouride. See section 2.

**Section 16 - Other Information**

**Prepared By:** Steve High, Consultant

**Revision Notes:** NA

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*NE = Not Established; NA = Not Applicable; ND = Not Determined*