Material Safety Data Sheet

Product Name: **Okite Quartz Surface**
MSDS Date: 12/9/10

1. Product and Company Description

Seieffe Corporation
12227 FM 529, S.te K
Houston, TX 77041
Tel: 713-849-3800
Fax: 713-849-3835

For Product Information/Emergency Contact:
713-849-3800

For chemical emergency or exposure call CHEMTREC Day or Night. Within USA and Canada: 1-800-424-9300

Product Use:
Quartz and Natural Stone Surfacing

2. Hazards Identification

Emergency Overview

Appearance/Odor: Multi-colored stone with no odor.

Potential Health Effects:

Acute Eye:
Product in finished form does not present a health hazard via this route of entry. Dusts and flying particles generated during cutting, grinding and forming may cause irritation and injury.

Acute Skin:
Dusts generated from this product may cause skin irritation.

Acute Inhalation:
Dusts from product may cause irritation to respiratory tract, nose, throat and lungs.

Acute ingestion:
Not considered a potential health hazard via this route of entry. This product may cause gastrointestinal irritation if dusts are swallowed.

Chronic Exposure:
The adverse health effects from crystalline silica exposure - silicosis, cancer, scleroderma, tuberculosis, and nephrotoxicity - are chronic effects.

Aggravation of Pre-existing Conditions:
Not Determined

3. Hazardous Chemical Composition

Component	CAS#	% Composition
Crystalline silica (quartz) and other natural stone	14808-60-7	>90
Resins and trace minerals including Al2O3, Fe203, TiO2, CaO, MgO, Na2O, K2), PtO5	N/A	Balance

4. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:
Immediately flush eyes with copious amounts of water for a minimum of 15 minutes. Seek immediate medical attention if adverse effect occurs.

Skin Exposure:
Wash skin with soap and water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Seek medical attention if adverse effect occurs.

Inhalation:
Remove person to fresh air. If necessary, use artificial respiration to support vital functions.

Ingestion:
If the material is swallowed, seek medical attention or advice.

5. Fire Fighting Measures

Fire Hazard Data:

Autoignition: At temperatures >490°C, this product will auto ignite.

Flash Point: 490°C

Flammability Limits (vol/vol%):	Lower:	Upper:
	ND	ND

Extinguishing Media:
Use appropriate extinguishing media for surrounding fire.

Special Fire Fighting Procedures:
Firefighters should wear full fire-fighting turn-out gear including NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards:
When heated to decomposition, may release various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

6. Accidental Release Measures

Cleanup and Disposal of Spill:
Solid slabs can simply be gathered as necessary. If large amounts of dust or wastes are created by cutting process, vacuum or sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust. Wear sufficient respiratory protection and protective clothing where necessary. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or local Waste Management Authority. Dispose of waste in accordance with local, state and federal regulations.

7. Handling and Storage

Handling/Storage:
Avoid breathing dust. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

Component	ACGIH	NIOSH	OSHA-PELs
Crystalline silica	0.025 mg/m3 TWA (respirable fraction)	0.05 mg/m3 TWA (respirable dust)	((250)/(%SiO2 + 5) mppcf TWA (respirable)); ((10)/(%SiO2 + 2) mg/m3 TWA (respirable)); ((30)/(%SiO2 + 2) mg/m3 TWA (total dust))

Engineering Controls:
Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS.

Respiratory Protection:
If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces.

Eye / Face Protection:
During cutting, grinding or sanding operations safety glasses with side shields or goggles should be worn.

Skin Protection:
During cutting, grinding or sanding operations use body protection appropriate for task including work gloves if handling sharp or rough edges and steel-toed shoes if lifting product.

9. Physical and Chemical Properties

Physical Appearance: Multi-colored stone
Odor: None
pH: NA
Specific Gravity/Density: 2.4
Water Solubility: Insoluble
Melting Point: NA
Freezing Point NA

Boiling Point: NA
Vapor Pressure: NA
Percent Volatiles by Volume: NA
Evaporation Rate: NA
Viscosity: ND
Flash Point: 490°C.
Explosion Limits: Lower: ND
Upper: ND
Autoignition Temp: At temperatures >490°C, this product will auto ignite.

10. Stability and Reactivity

Chemical Stability:
Stable

Conditions to Avoid:
None

Materials / Chemicals to Be Avoided:
This product is incompatible with hydrofluoric acid. Silica will dissolve in hydrofluoric acid and produce the corrosive gas silicon tetrafluoride.

Hazardous Decomposition Products:
Upon decomposition, various hydrocarbons, carbon dioxide, carbon monoxide and water may be released. Fumes of metal oxides and mica particles could also be released.

Hazardous Polymerization:
Will not occur.

11. Toxicological Information

Acute Effects
For Crystalline Silica: Inhalation (human) LCLo: 0.3mg/m3/10Y
Inhalation (human) TCLo: 16mppcf/ 8H/17.9Y
Intermittent; focal fibrosis, (pneumoconiosis), cough, dyspnoea.
Inhalation (rat) TCLo: 50mg/m3/6H/71W
Intermittent; liver - tumors

Chronic Effects
Silicosis: The major concern is ***silicosis***, caused by the inhalation and retention of respirable crystalline silica dust. Symptoms include:

Chronic or ordinary silicosis is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis.

Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function, or disability.

Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Although there may be no symptoms associated with complicated silicosis or PMF, the symptoms, if present, are shortness of breath, wheezing, cough and

sputum production. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (cor pumonale).

Accelerated silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and progression is more rapid.

Acute silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

Carcinogenicity: The International Agency for Research on Cancer **(IARC)** concluded that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans* (Group 1)." The National Toxicology Program **(NTP)**, in its *Ninth Annual Report on Carcinogens*, concluded that silica, crystalline (respirable) is "known to be a carcinogen, based on sufficient evidence in experimental animals and in humans." The U.S. Occupational Safety and Health Administration **(OSHA)** does regulate crystalline silica (quartz) as a carcinogen.

The American Thoracic Society on the issue of silica carcinogenicity was published in *Adverse Effects of Crystalline Silica Exposure*, American Journal of Respiratory and Critical Care Medicine, Vol. 155, pp. 761-765 (1997). The official statement concluded that "The available data support the conclusion that silicosis produces increased risk for bronchogenic carcinoma. The cancer risk may also be increased by smoking and other carcinogens in the workplace."

Scleroderma: There is evidence that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of scleroderma, an immune system disorder manifested by a fibrosis (scarring) of the lungs, skin and other internal organs.

Tuberculosis: Individuals with silicosis are at increased risk to develop tuberculosis, if exposed to persons with tuberculosis.

Nephrotoxicty: There are several recent studies suggesting that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of kidney disorders.

Mutagenicity: No Data
Reproductive Effects: No Data
Developmental Effects: No Data

12. Ecological Information

Environmental Fate:
Not Determined

Environmental Toxicity:
Not Determined

13. Disposal Considerations

Waste Disposal Method:
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste

management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transportation Information

US Department of Transportation Shipping Name:

US Department of Transportation	**Proper Shipping Name**	Not Regulated
	Hazard Class	Not Regulated
	ID Number	Not Regulated
	Packing Group	Not Regulated

15. Regulatory Information

Federal Regulations:

SARA Title III Hazard Classes:

Fire Hazard: No
Reactive Hazard: No
Release of Pressure: No
Acute Health Hazard: No
Chronic Health Hazard: Yes

TSCA

All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements

U.S. State Regulations:

California Prop 65 List: Crystalline silica (quartz) is classified as a substance known to the state of California to be a carcinogen.

16. Other Information

National Fire Protection Association NFPA(R) and Hazardous Materials Identification System (HMIS) Hazard Ratings:

Health Hazard: 1
Flammability: 0
Reactivity: 0

Key Legend Information:

N/A – Not Applicable
ND – Not Determined
ACGIH – American Conference of Governmental Industrial Hygienists
OSHA – Occupational Safety and Health Administration
TLV – Threshold Limit Value
IDLH – Immediately Dangerous to Life and Health
PEL – Permissible Exposure Limit
TWA – Time Weighted Average
STEL – Short Term Exposure Limit
NTP – National Toxicology Program
IARC – International Agency for Research on Cancer

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