Material Safety Data Sheet

Material Name: Keracolor S **ID: SAH00183**

* * * Section 1 - Chemical Product and Company Identification * * *

Material Name: Keracolor S

Product Use

Sanded Grout

Manufacturer Information

USA and Puerto Rico
MAPEI
1144 East Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-954-246-8888

Canada
MAPEI
2900 Francis-Hughes Avenue
Laval, QC H7L 3J5
Phone: 1-450-662-1212

IN THE EVENT OF A CHEMICAL EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPLOSION, EXPOSURE OR ACCIDENT, CONTACT THE FOLLOWING NUMBERS:

Emergency 24 hour numbers:
(USA) CHEMTREC 1-800-424-9300
(Canada) CANUTEC 1-631-996-6666

* * * Section 2 - Hazards Identification * * *

Emergency Overview

This product has been evaluated using criteria specified in 29CFR 1910.1200 (Hazard Communication Standard). Causes burns to the skin and eyes when mixed with water.

Hazard Statements

DANGER! CORROSIVE. Causes burns to the skin and eyes when mixed with water. May be harmful or fatal if swallowed. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

Potential Health Effects: Eyes

This product is irritating to the eyes. Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Potential Health Effects: Skin

This product is irritating to the skin. Mechanical rubbing may increase skin irritation.

Potential Health Effects: Ingestion

This product may be harmful if it is swallowed. Ingestion of this product may cause nausea, vomiting and diarrhea.

Potential Health Effects: Inhalation

This product may cause irritation to the respiratory system. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

Medical Conditions Aggravated by Exposure

Hypersensitivity to product, allergies, and skin or respiratory disorders

Potential Environmental Effects

None identified.

HMIS Ratings: Health: 1* **Fire:** 0 **Reactivity:** 0 **Pers. Prot.:** Safety glasses, gloves, and N95 respirator if dust exposure exceeds TLV values

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
14808-60-7	Silica Sand	30-60
65997-15-1	Portland cement	15-40
1317-65-3	Limestone	1-5
7778-18-9	Calcium sulfate	1-5
13463-67-7	Titanium dioxide	0.5-1.5
544-17-2	Calcium formate	0.5-1.5

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Silica, crystalline (general form), Calcium carbonates.

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

First Aid: Skin

For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

For ingestion, flush out mouth with water. If ingestion of a large amount does occur, seek medical attention. Do not induce vomiting.

First Aid: Inhalation

If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If symptoms persist, get medical attention.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

As with all dry powders, it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

Hazardous Combustion Products

Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical (preferred), foam, water.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 1 **Fire:** 0 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Personal Precautions

Avoid the generation of dusts during clean-up. Wear appropriate protective equipment and clothing during clean-up.

Containment Procedures

Contain the discharged material.

Environmental Precautions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Clean-Up Procedures

Attempt to reclaim the free product, if this is possible. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up. Wear appropriate protective equipment and clothing during clean-up. Keep out of the reach of children.

Evacuation Procedures

None identified.

Special Procedures

Wear a dust mask if dust is generated above exposure limits.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid getting this material into contact with your skin and eyes. Avoid breathing dusts from this material. Wash hands after handling and before eating. Keep out of the reach of children.

Storage Procedures

Store in a cool, dry, well-ventilated area. Keep the container tightly closed. Do not freeze.

* * * Section 8 - Exposure Controls / Personal Protection * * *

A: Component Exposure Limits

Silica Sand (14808-60-7)

ACGIH:	0.025 mg/m3 TWA (respirable fraction)
NIOSH:	0.05 mg/m3 TWA (respirable dust)
Alberta:	Designated substance - requires code of practice (respirable) (related to Silica, crystalline (general form)) 0.1 mg/m3 TWA (respirable particulate)
British Columbia:	ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen 0.025 mg/m3 TWA (respirable)
Manitoba:	0.025 mg/m3 TWA (respirable fraction)
New Brunswick:	0.1 mg/m3 TWA (respirable fraction)
NW Territories:	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)
Nova Scotia:	0.025 mg/m3 TWA (respirable fraction)
Nunavut:	0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass)
Ontario:	0.10 mg/m3 TWAEV 0.10 mg/m3 TWAEV (designated substance regulation)
Quebec:	0.1 mg/m3 TWAEV (respirable dust)
Saskatchewan:	Present (related to Silica, crystalline (general form)) 0.05 mg/m3 TWA (respirable fraction)
Yukon:	300 particles/mL TWA

Portland cement (65997-15-1)

ACGIH:	10 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)
OSHA (Final):	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Alberta:	10 mg/m3 TWA
British Columbia:	10 mg/m3 TWA (total particulate matter containing no asbestos and less than 1% crystalline silica); 3 mg/m3 TWA (respirable particulate matter containing no asbestos and less than 1% crystalline silica)
Manitoba:	10 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)
New Brunswick:	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nova Scotia:	10 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Ontario:	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)
Quebec:	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica); 5 mg/m3 TWAEV (respirable dust, containing no asbestos and less than 1% crystalline silica)
Saskatchewan:	10 mg/m3 TWA 20 mg/m3 STEL
Yukon:	30 mppcf TWA; 10 mg/m3 TWA 20 mg/m3 STEL

Limestone (1317-65-3)

OSHA (Final):	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Alberta:	10 mg/m3 TWA
British Columbia:	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction) 20 mg/m3 STEL (total dust)
New Brunswick:	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Quebec:	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)
Saskatchewan:	10 mg/m3 TWA 20 mg/m3 STEL
Yukon:	30 mppcf TWA; 10 mg/m3 TWA 20 mg/m3 STEL

Calcium sulfate (7778-18-9)

ACGIH:	10 mg/m3 TWA (inhalable fraction)
OSHA (Final):	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
Alberta:	10 mg/m3 TWA
British Columbia:	10 mg/m3 TWA (inhalable)
Manitoba:	10 mg/m3 TWA (inhalable fraction)
New Brunswick:	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nova Scotia:	10 mg/m3 TWA (inhalable fraction)
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Ontario:	10 mg/m3 TWAEV (inhalable)
Quebec:	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica); 5 mg/m3 TWAEV (respirable dust, containing no asbestos and less than 1% crystalline silica)
Saskatchewan:	10 mg/m3 TWA 20 mg/m3 STEL

Titanium dioxide (13463-67-7)

ACGIH:	10 mg/m3 TWA
OSHA (Final):	15 mg/m3 TWA (total dust)
Alberta:	10 mg/m3 TWA
British Columbia:	IARC Category 2B - Possible Human Carcinogen 10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)
Manitoba:	10 mg/m3 TWA
New Brunswick:	10 mg/m3 TWA
NW Territories:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Nova Scotia:	10 mg/m3 TWA
Nunavut:	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass)
Ontario:	10 mg/m3 TWAEV (total dust)
Quebec:	10 mg/m3 TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)
Saskatchewan:	10 mg/m3 TWA 20 mg/m3 STEL
Yukon:	30 mppcf TWA; 10 mg/m3 TWA 20 mg/m3 STEL

Engineering Controls

Use general ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields.

Personal Protective Equipment: Skin

The use of nitrile-latex gloves is recommended.

Personal Protective Equipment: Respiratory

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Personal Protective Equipment: General

Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Powder	**Odor:**	Cement odor
Physical State:	Solid	**pH:**	12
Vapor Pressure:	N/A	**Vapor Density:**	N/A
Boiling Point:	N/A	**Melting Point:**	N/A
Solubility (H2O):	Negligible	**Specific Gravity:**	N/A
Evaporation Rate:	N/A	**VOC:**	0 g/L
Octanol/H2O Coeff.:	N/A	**Flash Point:**	N/A
Flash Point Method:	N/A	**Upper Flammability Limit (UFL):**	N/A
Lower Flammability Limit (LFL):	N/A	**Burning Rate:**	N/A
Auto Ignition:	N/A		

Physical Properties: Additional Information

The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Keep away from heat, ignition sources and incompatible materials.

Incompatibility

This product may react with strong acids, bases and oxidizing agents.

Hazardous Decomposition

Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this product may emit fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic compounds.

Possibility of Hazardous Reactions

Will not occur.

* * * Section 11 - Toxicological Information * * *

Acute Dose Effects

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Silica Sand (14808-60-7)
Oral LD50 Rat: 500 mg/kg

Calcium sulfate (7778-18-9)
Oral LD50 Rat: >3000 mg/kg

Titanium dioxide (13463-67-7)
Oral LD50 Rat: >10000 mg/kg

Calcium formate (544-17-2)
Oral LD50 Rat: 2650 mg/kg

Carcinogenicity

A: General Product Information

Exposure to quartz (the most stable and common form of crystalline silica) is responsible for the majority of clinically diagnosed silicosis. Silicosis is a fibronodular lung disease that occurs after occupational exposure to crystalline silica for 5 years or longer. Inhalation of quartz dusts may cause shortness of breath, limitation of chest expansion, dry cough, and a lessened capacity for work. Individuals with a pre-existing disease in, or a history of ailments involving the skin or respiratory tract, are at a greater risk of developing adverse health effects when exposed to this material. There may be a relationship between silicosis and certain cancers.

B: Component Carcinogenicity

Silica Sand (14808-60-7)

ACGIH:	A2 - Suspected Human Carcinogen
NIOSH:	potential occupational carcinogen
NTP:	Known Human Carcinogen (Select Carcinogen)
IARC:	Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources) (Group 1 (carcinogenic to humans))

Titanium dioxide (13463-67-7)

ACGIH:	A4 - Not Classifiable as a Human Carcinogen
NIOSH:	potential occupational carcinogen
IARC:	Monograph 93 [in preparation]; Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

Sensitization

No information available for the product.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Calcium sulfate (7778-18-9)

Test & Species		Conditions
96 Hr LC50 Lepomis macrochirus	2980 mg/L	[static]
96 Hr LC50 Pimephales promelas	>1970 mg/L	[static]
120 Hr EC50 Nitscheria linearis	3200 mg/L	

Calcium formate (544-17-2)

Test & Species		Conditions
96 Hr LC50 Brachydanio rerio	>=1000 mg/L	[static]

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

No additional information available.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

* * * Section 14 - Transportation Information * * *

International Transportation Regulations

Not regulated as dangerous goods.

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Silica Sand	14808-60-7	No	Yes	Yes	Yes	Yes	Yes
Portland cement	65997-15-1	No	Yes	Yes	Yes	Yes	Yes
Limestone	1317-65-3	No	Yes	Yes	Yes	Yes	Yes
Calcium sulfate	7778-18-9	No	Yes	Yes	Yes	Yes	No
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains a chemical known to the state of California to cause cancer.

Canadian WHMIS Information

A: General Product Information

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Silica Sand	14808-60-7	1 %
Calcium formate	544-17-2	1 %

Additional Regulatory Information

A: General Product Information

Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Silica Sand	14808-60-7	Yes	DSL	EINECS
Portland cement	65997-15-1	Yes	DSL	EINECS
Limestone	1317-65-3	Yes	NDSL	EINECS
Calcium sulfate	7778-18-9	Yes	DSL	EINECS
Titanium dioxide	13463-67-7	Yes	DSL	EINECS
Calcium formate	544-17-2	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

Reference

I5-1601-53

Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

Key/Legend

NA = Not available or Not Applicable. ACGIH = American Conference of Governmental Industrial Hygienists. NFPA = National Fire Protection Association. EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Contact: Product Safety Specialist
Contact Phone: 1-954-246-8888

End of Sheet SAH00183