

# MSDS Document

## Product MS-D3 Mining Shotcrete

### 1. Chemical Product and Company Identification

#### Product MS-D3 Mining Shotcrete

**MSDS ID 2007**

**Manufacturer**

King Packaged Materials Company  
3385 Harvester Road  
Burlington, ON L7R 3Y5

**Emergency Phone**

(800) 461-0566

**Revision Date** 3/16/2009

### 2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
Silica, total quartz	14808-60-7	60% - 100%	0.05 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	
Portland Cement	65997-15-1	10% - 30%	10 mg/m <sup>3</sup> (T)	5 mg/m <sup>3</sup> (R)	
Silica Fume	69012-64-2	1% - 5%	2 mg/m <sup>3</sup> (R)	15 mg/m <sup>3</sup> (T)	

Other additives not controlled through WHMIS or other legislation.

### 3. Hazard Identification

**Routes of Entry**

Inhalation.  
Ingestion.  
Skin Absorption.

**Eyes**

Airborne dust may cause immediate or delayed irritation or inflammation.

**Skin**

May cause dry skin, discomfort, and irritation.

**Inhalation - Acute**

Exposure to airborne concentrations above exposure limits may cause irritation of the nose, throat and lungs.

**Inhalation - Chronic**

Risk of injury depends on duration and level of exposure.

**Carcinogenicity**

Suspect cancer hazard. Risk of cancer depends on duration and level of exposure.

**Silicosis**

This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica can cause silicosis, a seriously disabling and potentially fatal lung disease. See Section 4 for further information.

**4. First Aid Information****Eye Contact**

Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Seek medical attention for abrasions.

**Skin Contact**

Seek medical attention for rash, burns, irritation, dermatitis and prolonged unprotected exposures to wet cement, cement mixtures or liquids from wet cement.

**Ingestion**

If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**Inhalation**

Move victim to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

**Additional Notes - Silicosis**

There are three (3) types of silicosis:

1) Simple chronic silicosis - which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD).

2) Accelerated silicosis - occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis.

3) Acute silicosis - results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels.

Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

**5. Fire Fighting Measures****Flash Point**

Not Available

**FP Method** Not Available

**Extinguishing media**

Media appropriate for surrounding fire.

## 6. Accidental Release Measures

**General**

Avoid actions that cause the product to become airborne. Avoid inhalation of the product and contact with skin. Wear appropriate protective equipment as described in Section 8. Scrape wet product and place in container. Allow material to dry or solidify before disposal. Do not wash product down sewage and drainage systems or into bodies of water (e.g. streams).

**Clean Up**

Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**Waste Disposal Method**

Dispose of product according to Federal, State, Provincial and Local regulations.

## 7. Handling and Storage

**Handling**

Stack bagged material in a secure manner to prevent falling.

Use with adequate ventilation.

Minimize dust generation and accumulation.

Bagged product is heavy and poses risks such as sprains and strains to the back, the arms, the shoulders and the legs during lifting and mixing.

Always use good industrial hygiene practices and safety guidelines

**Storage**

Keep away from food and drinking water.

Store in a dry area.

Store material in its original container.

Keep containers tightly closed when not in use.

Protect from freezing

## 8. Exposure Controls and Personal Protection

**Hand Protection**

Approved gloves should be worn based on risk assessments.

**Respiratory Protection**

Use of an approved respirator, based on a risk assessment is necessary. Respiratory protection should be selected based on the known or anticipated levels of exposure, and the work being performed.

**Eye Protection**

Approved safety eyewear should be worn, based on the risk assessments performed.

**Skin Protection**

Personal protective equipment for the body should be selected based on the task being

performed. This includes gloves, coveralls and footwear.

**Engineering controls**

If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Environmental Exposure Controls**

Emissions from ventilation or work process equipment should be checked to ensure their compliance with environmental protection legislation requirements. In some cases, it may be necessary to modify process equipment to reduce emissions to acceptable levels.

**9. Physical and Chemical Properties**

<b>Physical State</b>	Solid - Powder
<b>Specific Gravity</b>	2.5
<b>Color/Appearance</b>	Not Available
<b>Odor</b>	Odorless
<b>pH</b>	Not Available
<b>Boiling/Cond. Point</b>	Not Available
<b>Melting/Freezing Point</b>	Not Available
<b>Solubility</b>	Not Available
<b>Evaporation Rate</b>	Not Available
<b>Percent Volatile</b>	Not Available
<b>Molecular Formula</b>	Not Available
<b>Viscosity</b>	Not Available
<b>Vapor Density</b>	Not Available
<b>Vapor Pressure</b>	Not Available

**10. Stability and Reactivity****Stability**

Stable under normal conditions.

**Conditions to Avoid**

Store protected from unplanned moisture.

**Materials to Avoid**

None.

**Hazardous Decomposition Products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Hazardous Polymerization**

Will not occur

**11. Toxicological Information****Carcinogenicity**

Crystalline Silica Quartz (Respirable Form)

ACGIH: A2

IARC: 1

EPA: -

NIOSH: +

NTP: Proven

OSHA: -

## 12. Ecological Information

### Environmental Effects

There are no known significant effects or critical hazards.

## 13. Disposal Considerations

### Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Material should be disposed of in accordance with local, state and federal regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION for additional information on handling and employee protection.

## 14. Transportation Information

### Transportation

This product is not classified as a Hazardous Material under U.S DOT or Canadian TDG regulations.

## 15. Regulatory Information

### WHMIS

Hazardous Component(s) subject to WHMIS Ingredient Disclosure.

Class D2-A: Material causing other toxic effects.

Class E: Corrosive Material.

## 16. Other Information

### Disclaimer

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.