

# Material Safety Data Sheet

Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers

## 1. Product and company identification

Common name	: Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers	
Synonym	: Not available.	
Code	: Not available.	
Material uses	: Not available.	
Supplier	: Not available.	
Manufacturer	: Not available.	
In case of emergency	: Not available.	
MSDS authored by:	: Kemika XXI Inc. + 1-450-435-7475	04/15/2006

## 2. Hazards identification

Physical state	: Solid.
Odor	: Odorless.
Color	: Various, depends on possible pigmentation.
Hazard status	: This material is classified hazardous under the WHMIS Controlled Product Regulation in Canada.
Emergency overview	: CAUTION! <b>Dust from sawing or grinding:</b> MAY CAUSE RESPIRATORY TRACT AND EYE IRRITATION. Risk of cancer depends on duration and level of exposure. Dry sawing or grinding of concrete masonry products may result in the release of respirable crystalline quartz. Prolonged exposure to respirable crystalline quartz may cause delayed (chronic) lung injury (silicosis). Acute or rapidly developing silicosis may occur in a short period of time in heavy exposure. Silicosis is a form of disabling pulmonary fibrosis, which can be progressive and may lead to death.
Routes of entry	: Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Eyes	: May cause eye irritation.
Skin	: None, under normal conditions of uses. Unreacted cement can cause an exothermic reaction, resulting in a chemical skin burn if moisture is added.
Inhalation	: <b>Dust from sawing or grinding:</b> May cause respiratory tract irritation.
Ingestion	: No known significant effects or critical hazards.
Potential chronic health effects	: Carcinogenic effects Classified 1 (Known to be human carcinogens.) by NTP, + (Proven.) by NIOSH. Classified A2 (Suspected for humans.) by ACGIH, 2A (Probable for human.) by IARC [Silica, Crystalline - Quartz]. Mutagenic effects Not available. Teratogenic effects Not available.
Medical conditions aggravated by over-exposure	: Repeated or prolonged exposure to the substance can produce lung damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated or prolonged exposure to the substance can produce target organ damage. Pre-existing lung diseases such as emphysema or asthma: Pulmonary function may be reduced by inhalation of respirable crystalline silica. Also lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart

Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers

enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.

See toxicological information (section 11)

### 3. Composition/information on ingredients

#### Canada

Name	CAS number	%
Silica, Crystalline - Quartz	14808-60-7	70 - 100

### 4. First aid measures

Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops.
Skin contact	: Wash with soap and water. Get medical attention if symptoms occur.
Inhalation	: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### 5. Fire-fighting measures

#### Extinguishing media

Suitable	: Use an extinguishing agent suitable for the surrounding fire, since this material will not burn.
Not suitable	: None known.
Special exposure hazards	: No specific hazard.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment for surrounding fire.

### 6. Accidental release measures

Personal precautions	: Use suitable protective equipment.
Environmental precautions	: See section 13 for waste disposal information.
Methods for cleaning up	: Avoid creating dusty conditions and prevent wind dispersal. Dispose of according to all federal, state and local applicable regulations.

### 7. Handling and storage

Handling	: Wash thoroughly after handling.
----------	-----------------------------------

### 8. Exposure controls/personal protection

#### Canada

#### Product name

Silica, Crystalline - Quartz

#### Exposure limits

ACGIH TLV (Canada, 1/2005).

TWA: 0.05 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction

National Institute for Occupational Safety and Health (NIOSH). Recommended standard maximum permissible concentration is 0.05 mg/m<sup>3</sup> (respirable free silica) as determined by a full-shift sample up to a 10-hour work day, 40-hour work week. See NIOSH Criteria for a Recommended Standard Occupational Exposure to Crystalline Silica.

Consult local authorities for acceptable exposure limits.

## Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers

**Engineering measures** : Use only with adequate ventilation. If user operations generate dust or fumes, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Personal protection

**Eyes** : Safety glasses.

**Skin** : Overall.

**Respiratory** : If respiratory protection is required, follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standard. CSA standard for respirators is Z94.4-02 'selection, Use and Care of Respirators. Recommended: Dust respirator./Disposable particulate mask.

**Hands** : Leather gloves.



**HMIS Code/Personal protective equipment** : E

**Personal protection in case of a large spill** : Not applicable.  
Follow good industrial hygiene practice.

## 9 . Physical and chemical properties

**Physical state** : Solid.

**Color** : Various, depends on possible pigmentation.

**Odor** : Odorless.

**Molecular weight** : 60.09 g/mole

**Molecular formula** : SiO<sub>2</sub>

**Density** : 2250-2450 kg/m<sup>3</sup>.

**Solubility** : Insoluble in cold water, hot water.

## 10 . Stability and reactivity

**Stability and reactivity** : The product is stable.

**Incompatibility with various substances** : None known.

**Hazardous decomposition products** : Not applicable.

**Hazardous polymerization** : Will not occur.

## 11 . Toxicological information

**IDLH** : 50 mg/m<sup>3</sup>

### Acute Effects

**Eyes** : May cause eye irritation.

**Skin** : None, under normal conditions of uses. Unreacted cement can cause an exothermic reaction, resulting in a chemical skin burn if moisture is added.

**Inhalation** : **Dust from sawing or grinding:**  
May cause respiratory tract irritation.

**Ingestion** : No known significant effects or critical hazards.

**Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers**

Potential chronic health effects : Carcinogenic effects Classified 1 (Known to be human carcinogens.) by NTP, + (Proven.) by NIOSH. Classified A2 (Suspected for humans.) by ACGIH, 2A (Probable for human.) by IARC [Silica, Crystalline - Quartz].  
Mutagenic effects Not available.  
Teratogenic effects Not available.

## 12 . Ecological information

Environmental precautions : No known significant effects or critical hazards.  
Products of degradation : Some metallic oxides.  
Toxicity of the products of biodegradation : The product itself and its products of degradation are not toxic.

## 13 . Disposal considerations

Waste disposal : Normal breakage may be picked up and discarded as common waste. Residue from dry sawing and grinding operations should be disposed of in accordance with federal, state and local applicable regulations.

## 14 . Transport information

NAERG : Not applicable.  
Regulatory information  
UN/ IMDG/IATA/ TDG : Not regulated.

## 15 . Regulatory information

Canada  
WHMIS (Canada) : Not a WHMIS controlled material.



CEPA DSL: Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers

**This product has been classified in accordance with the hazard criteria of the Canadian CPR. This MSDS contains all the information required by the CPR.**

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

Hazardous Material Information System (U.S.A.) :

HMIS RATING	
Health	* 1
Fire hazard	0
Physical Hazard	0
Personal protection	E

### HAZARD RATINGS

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal

See section 8 for more detailed information on personal protection.

Concrete unit paving products including concrete pavers, precast concrete paving slabs, concrete grid pavers, and permeable interlocking concrete pavers

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

Date of issue : 04/15/2006  
Version : 1

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. 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.