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Mendota Heights, MN 55120-1221

Date: July 2015 Rev: 1

Emergency Phone: 1-800-642-3887 Information Phone: 651-688-9292

### **Section 1: Product Identification**

Product Type: construction aggregate

Product Names

**Recycled Concrete** 

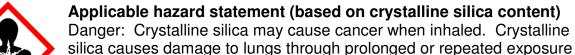
This product is crushed concrete, with less than 5% bituminous.

#### Section 2: Hazard Identification

The most immediate and likely hazards are burns from dust in the eye. When the product is exposed to water, it will leach an alkaline solution, which can cause skin irritation. Dust from the product is irritating to breathe. Prolonged overexposure to dust from the product is harmful to breathe, because it will contain crystalline silica.

Applicable hazard statement based on concrete content

Danger. Causes serious eye damage. Causes skin irritation



from inhaling dust.

This product has been evaluated according to GHS and 29CFR1910.1200, Appendix A. Because it may contain crystalline silica (quartz), it is categorized in Health Hazard Carcinogen Category 1A and Specific Target Organ Toxicity (Repeated Exposure) Hazard Category 1. It is categorized as a Health Hazard (serious eye damage/eye irritation - Category 1 and skin irritation - Category 2) because it may have a pH above 11.5.

## Applicable hazard statements:

May cause cancer from inhaling dust.

Causes damage to respiratory system (silicosis) through prolonged or repeated exposure to inhaled dust.

# **Applicable Precautionary Statements**

Based on crystalline silica content:

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Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dusts

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Wear eye protection

If exposed or concerned, or if you feel unwell: Get medical advice.

Store locked up.

Dispose of contents in accord with local regulations

#### Based on cement content:

Wear skin and eye protection (water resistant protective gloves. Goggles recommended to prevent any dust in eyes).

Wash any exposed skin thoroughly after handling material

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor if any eye irritation or discomfort develops

IF ON SKIN: wash with plenty of water. If skin irritation occurs, get medical attention.

Section 3: Hazardous Ingredients/Composition					
Ingredient	Typical Percentage	CAS #			
Recycled concrete	100%	none			
Silica sand (as quartz)	varies	14808-60-7			
Calcium hydroxide		1305-62-0			

Concrete is made from cement, silica sand (quartz), and gravel or rock. The cement in this product has chemically reacted with water to form concrete (calcium-aluminum-silicate compounds). The product may leach calcium hydroxide, a component of the cured concrete.

Material may contain a small amount of recycled asphalt concrete.

#### **Section 4: First Aid Measures**

#### Inhalation:

If irritation or coughing develops, move to fresh air.

#### **Eve contact:**

Immediately rinse eyes: hold eyelids apart and flush eyes with plenty of water. At least fifteen minutes of flushing is recommended. Get prompt medical attention for any discomfort or irritation.

### **Skin Contact:**

Promptly wash off with plenty of soap and water. Get medical attention for any burns or persistent rashes.

#### Ingestion:

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Swallowing harmful amounts is unlikely. If swallowed, check with the Poison Control Center or a doctor. Do not induce vomiting unless directed to do so by medical personnel.

### **Symptoms of overexposure:**

<u>Inhalation:</u> Breathing the dust may cause coughing, wheezing, sore throat. Repeated exposure to the dust can cause a runny nose, chronic coughing and impaired lung function. Long term exposure to respirable crystalline silica in the dust can cause silicosis (lung scarring) and lung cancer.

<u>Eye contact:</u> eye irritation from the mechanical effect. Eye irritation, burning from calcium hydroxide.

Skin Contact: Can cause skin irritation and can dry the skin. Because calcium hydroxide can leach out of the recycled material, contact with damp skin can cause irritation or burns, which may not be felt immediately.

**Note to physician**: Treat according to symptoms. No known specific antidote.

## **Section 5: Fire Fighting Measures**

**Fire extinguishing media:** Appropriate for surrounding materials. Product is not flammable.

Special fire fighting procedures: none Unusual fire and explosion hazards: None

**Hazardous combustion products:** None expected.

#### Section 6: Accidental Release Measures

Contain and clean up. Avoid creating dust.

## **Section 7: Handling and Storage**

Avoid creating dust.

Wash hands after use.

Do not eat, drink, or use tobacco products when handling any chemical products.

**Storage:** No special precautions required.

### **Section 8: Exposure Controls/Personal Protection**

Occupational Exposure Limits:

OSHA PEL	OSHA 1989	ACGIH TLV	NIOSH REL		
	PEL*				

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Crystalline silica (quartz)	10 mg/m <sup>3</sup> (%silica+2)	0.1 mg/m <sup>3</sup> (respirable)	0.025 mg/m <sup>3</sup> (respirable)	0.05 mg/m <sup>3</sup>
Concrete (hardened)	15 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable)	15 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable)	10 mg/m <sup>3</sup> (inhalable) 3 mg/m <sup>3</sup> (respirable)	None
Calcium hydroxide	15 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable)	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>

<sup>\*</sup>For states that adopted the 1989 PEL revisions (Minnesota, Oregon, Washington)
\*\*Hardened concrete exposure limits are for particulates not otherwise regulated

## **Engineering Controls:**

Avoid creating dust. Water can be used as a dust suppressant. Local exhaust ventilation is usually not required.

### Personal protective equipment

**Respiratory protection:** For protection against irritation from dust or up to ten times the recommended exposure limits, use a NIOSH-approved N-95 filtering facepiece or a half mask respirator equipped with N-95 filters. A more protective respirator (e.g., P100 filters or full face respirator) may be substituted.

**Skin protection:** Avoid any skin contact. Wear any water-impermeable gloves such as PVC gloves, particularly for prolonged contact. Wear boots high enough to prevent any concrete dust from getting into them. Promptly wash off of skin and remove contaminated clothing.

**Eye protection:** Safety glasses with side shields. If used in dusty or windy conditions, goggles are recommended.

## **Section 9: Physical and Chemical Properties**

Appearance and odor: Light brown or gray granular solid

Flash point: noncombustible. Specific gravity: 2.62 - 2.74 SSD

Flammable limits: N/A Melting Point: >2700°F

Solubility in water: negligible.

**Evaporation Rate:** Does not evaporate.

**pH:** 9-12

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<sup>(</sup>OSHA, NIOSH) or for particles (insoluble or poorly soluble) not otherwise specified.

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### **Section 10: Stability and Reactivity**

Stability: stable

Conditions to avoid: none known.

Incompatibility: Avoid strong oxidizers, strong acids. Leachate containing calcium hydroxide can react with nitro-organic compounds to form explosive salts, and can react explosively with maleic anhydride. Calcium hydroxide can attack metals in the presence of water, forming hydrogen gas (flammable/explosive).

Hazardous polymerization: will not occur

**Hazardous decomposition products:** Silica will dissolve in hydrofluoric acid and produce a corrosive gas - silicon tetrafluoride. Abrasion can create silica-containing respirable dusts.

### **Section 11: Toxicological Information**

Not considered acutely toxic.

Can damage the eyes, skin, and respiratory system.

Recycled concrete can leach calcium hydroxide. Calcium hydroxide is categorized as Health Hazard Serious Eye Damage/Eye Irritation Category 1 and Serious Skin Category 1, because it forms a strong alkaline solution in water.

Portland cement, used in formulating concrete, may contain trace amounts of hexavalent chromium. Hexavalent chromium can cause allergic contact dermatitis.

Respirable crystalline silica is categorized as a Health Hazard Carcinogen Category 1A (known to have carcinogenic potential for humans) and a Health Hazard Specific Target Organ Toxicity – Repeated Exposure Category 1. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

Crystalline silica is listed as carcinogenic according to IARC. ACGIH classified crystalline silica as a suspected human carcinogen.

# **Section 12: Ecological Information**

Product has not been tested but is expected to have very low acute toxicity. **Ecotoxicity**: .

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Not considered hazardous to the ozone layer. Can increase alkalinity of water, but not considered environmentally damaging.

Persistence and degradability: Not likely to biodegrade

Mobility in soil: not mobile.

Bioaccumulation: Not likely to bioaccumulate

## **Section 13: Disposal Considerations**

As provided, not a RCRA-regulated waste.

Dispose of in accordance with federal, state, and local regulations.

### **Section 14: Transportation**

Not a DOT-regulated hazardous material. Not classified as dangerous goods for DOT, IATA, IMDG, TDG

# **Section 15: Regulatory Information**

This product may contain 0.01% or more of crystalline silica, regulated under California Proposition 65 as a chemical known to the state of California to cause cancer or reproductive effects. It is on the New Jersey Right to Know Hazardous Substance List.

This product does not contain any hazardous air pollutants, nor any chemicals regulated under:

CERCLA SARA 302 EHS SARA 311/312 SARA 313

## **Section 16: Other Information**

HMIS® Rating: Health: 0\* Fire: 0 Reactivity: 0

HMIS® is a registered trademark of the National Paint and Coatings Association

NFPA 704 Rating: Health: 0 Fire: 0 Reactivity: 0

NFPA rating, from the National Fire Protection Association, is for emergency

response

NOTE: The information and recommendations contained herein are based upon data believed to be correct and relate to this specific material. It may not be valid if the material is used with any other materials or in any processes. However, no guarantee or warranty of any kind, express or implied, is

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made with respect to this information. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products. Before using any product, read its label and safety data sheet.

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