



<b>Safety Data Sheet</b>	Issue Date: 18 May 2015
<b>Manufactured Concrete Products</b>	Review Date: 16 January 2017

**SECTION 1 – Company and Product Identification**

**PRODUCT IDENTIFIER**

Product name: **Manufactured Concrete Products (Concrete Pipe, Reinforced Concrete Box, Concrete Structures)**

**INTENDED USE OF THE PRODUCT**

Tubular or hollow cylinder used to convey flowing substances. Product may also be used in structural applications.

**NAME, ADDRESS AND TELEPHONE OF THE RESPONSIBLE PARTY**

Rinker Materials  
6560 Langfield, Bldg 3  
Houston, TX 77092-1008

**EMERGENCY TELEPHONE NUMBER**

800-424-9300

**SECTION 2 – Hazards Identification**

**CLASSIFICATION OF THE PRODUCT**

Concrete pipes are not considered hazardous as shipped. Dust generated from crushing, cutting, grinding or drilling hardened concrete may contain amounts of crystalline silica considered hazardous under the OSHA Hazard Communication Standard.

**GHS-US CLASSIFICATION**

- H313: May be harmful in contact with skin
- H320: Causes eye Irritation (Eye Irritant. 2B)
- H372: Causes damage to respiratory system (silicosis) through prolonged or repeated exposure to inhaled dust

**LABEL ELEMENTS**

**GHS-US LABELING**

Hazard Pictograms (GHS-US):



Signal Word:

**Warning**

Hazard Statements:

- H313 – May be harmful in contact with skin
- H320 – Causes eye irritation
- H372 – Causes damage to respiratory system (silicosis) through prolonged or repeated exposure to inhaled dust

Precautionary Statements:

**BASED ON CRYSTALLINE SILICA CONTENT**

- P260 – Do not breathe dusts of disturbed (cut, crushed, etc.) without use of aligned / approved respirator
- P270 – Do not eat, drink or smoke when using this product
- P280 – Wear eye protection

**BASED ON CEMENT DUST CONTACT**

- P280 – Wear skin and eye protection



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P264 – Wash any exposed skin thoroughly after handling material

P305+P351+P338 – If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P310 – Immediately call a doctor if any eye irritation or discomfort develops

P302+P352 – If on skin, wash with plenty of water

No additional information available.

**Other Hazards:**

**Acute Toxicity:**

A rare “acute” form of silicosis may develop from inhalation of extremely high concentrations of crystalline silica over a period of several months to five years.

**Chronic Toxicity:**

Repeated or prolonged inhalation of high concentrations of very small dust particles (respirable) may cause changes to the fibrous tissues of the lungs.

Repeated or prolonged inhalation of high concentrations of respirable particles which contain crystalline silica may cause silicosis, an incurable lung disease. Silicosis is a scarring of the lungs which generally develops gradually over a period of years and may progress even after exposure has stopped. Early symptoms may be so mild that they are not noticed. In advanced cases, lung capacity is severely reduced and the risk of infectious diseases such as tuberculosis increases. Early symptoms of silicosis include coughing and shortness of breath on exercising; symptoms may progress to pain in the chest, loss of appetite, fatigue, weakness, inability to work. Complications may lead to respiratory or heart failure. Chronic silicosis generally occurs after 10 or more years of overexposure.

Studies indicate that people with silicosis have an increased risk of lung cancer; however, many of the studies do not take into account additive factors such as smoking.

## SECTION 3 – Composition / Information on Ingredients

### SUBSTANCES

Hazardous Component	CAS Number	% by weight	GHS-US Classification
Crystalline silica (quartz)	14808-60-7	>0.1	H313, H320, H372
Portland Cement	65997-15-1	5-10%	

Full text of H-phrases: see section 16



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## SECTION 4 – First Aid Measures

### DESCRIPTION OF FIRST AID MEASURES

- First-aid measures after inhalation:** Move exposed individual to fresh air. Dust in throat and nasal passages should clear naturally by coughing, sneezing and nasal discharge. Obtain medical attention if symptoms persist or develop later.
- First-aid measures after skin contact:** If irritation occurs, flush gently with water until dust is removed. If irritation persists or develops later, obtain medical attention.
- First-aid measures after eye contact:** Do not allow individual to rub eyes. Flush gently under running water for 15 minutes or longer, making sure that the eyelids are held open. Other than washing with water, do not attempt to remove material from eyes. If pain or irritation persists or develops later, obtain medical attention.
- First-aid measures after ingestion:** Ingestion is not a common route of occupational exposure for this product.

### MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Symptoms/injuries after inhalation:** Breathing dust may cause coughing or sore throat. Repeat 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).
- Symptoms/injuries after eye contact:** Eye irritation from mechanical effect.

## SECTION 5 – Firefighting Measures

- Extinguishing media:** Appropriate for surrounding flammable materials. Product is not flammable.
- Special firefighting procedures:** None
- Unusual fire and explosion hazards:** Spalling of hardened concrete may occur under conditions of intense heat.
- Hazardous combustion products:** None expected

## SECTION 6 – Accidental Release Measures

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- General measures:** If large amounts of dust have been generated, eye protection and appropriate respiratory protection should be used to protect cleanup personnel against dust. Do not dry sweep broken or dusty material. Use water spray to minimize dust or vacuum with HEPA filters.



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**SECTION 7 – Handling and Storage**

**PRECAUTIONS FOR SAFE HANDLING**

**Additional hazards when processed:** Dust containing crystalline silica may be generated during dry cutting, grinding, or crushing.

**Precautions for safe handling:** Activities which generate dust should take place in well-ventilated areas. Use good housekeeping methods to prevent the accumulation of dust in the workplace.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and again before leaving work.

**Conditions for safe storage, including any incompatibilities**

**Storage conditions:** Store tiles bound and on firm footing to reduce the possibility of overturning.

**Incompatible products:** Strong acids may etch concrete.

**SECTION 8 – Exposure Controls/Personal Protection**

**Control parameters**

Component		Cal/OSHA PEL (mg/m <sup>3</sup> )	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )	NIOSH REL (mg/m <sup>3</sup> )
<b>Crystalline silica</b>	CAS #14808-60-7				
Respirable		0.1	----	----	----
Total		0.3	----	.025	0.05
<b>Respirable Dust</b>	≤1% crys. silica	----	10 (%SiO <sub>2</sub> +2)	----	----
<b>Total Dust</b>	≤1% crys. silica	----	30 (%SiO <sub>2</sub> +2)	----	----
<b>Portland Cement</b>	CAS #65997-15-1	----	5	10	5

**Exposure controls**

**Appropriate engineering controls:** When crushing, cutting, grinding or drilling concrete, use general ventilation, local exhaust and/or wet suppression methods to maintain exposures below allowable exposure limits.

**Eye protection:** Safety glasses with side shields should be worn as minimum protection. Dust goggles or full face protection should be worn when conditions with high dust concentrations exist or are anticipated.

**Skin and body protection:** Use gloves to provide hand protection from abrasion. In very dusty conditions, clothing with long sleeves will provide skin protection. Contaminated work clothing should be washed after use.

**Respiratory protection:** Usually not required when working with finished product, but take measures to minimize dust exposure; however, may be



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required for crushing, grinding, cutting or drilling material. In those cases, the need for respiratory protection should be evaluated by a qualified professional. The use of respirators for controlling exposures in excess of PEL must comply with OSHA and MSHA requirements for medical surveillance, respirator fit testing, repair and cleaning, and user training.

**Other information:**

Air monitoring for respirable dust containing quartz should be conducted regularly. Airborne dust levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclose, and enclosed employee workstations.

## SECTION 9 – Physical and Chemical Properties

### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid
Appearance:	Hollow tube-shaped concrete objects
Color:	Gray
Odor:	None
Odor threshold:	N/A
pH:	N/A
Relative evaporation rate:	N/A
Melting point:	N/A
Freezing point:	N/A
Boiling point:	N/A
Flash point:	N/A
Auto-ignition temperature:	N/A
Decomposition temperature:	N/A
Flammability (solid, gas):	N/A
Vapor pressure:	N/A
Relative vapor density at 20°C:	N/A
Density:	Denser than water
Solubility:	Negligible
Explosive properties:	N/A
Oxidizing properties:	N/A

## SECTION 10 – Stability and Reactivity

Reactivity:	Stable
Chemical stability:	Stable



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<b>Possibility of hazardous reactions:</b>	None known
<b>Conditions to avoid:</b>	None known
<b>Incompatible materials:</b>	Strong acids may etch concrete
<b>Hazardous decomposition products:</b>	None known

## SECTION 11 – Toxicological Information

### INFORMATION ON TOXICOLOGICAL EFFECTS

#### Acute toxicity:

Not considered acutely toxic. Standard animal toxicity data (LD50, LC50) are not available for quartz. Epidemiologic studies of workers indicate an increased risk of lung cancer from chronic exposure to respirable crystalline silica; this effect was more pronounced in those with silicosis. However, many of the studies did not account for effects of smoking or other confounding exposures.

Epidemiologic studies have linked crystalline silica exposure with autoimmune diseases and kidney disorders. Individuals with silicosis show a higher incidence of scleroderma, a thickening of the skin. Current data have not shown a definite causal effect between these effects and exposure to respirable crystalline silica.

In laboratory animal tests, dust containing newly broken particles of respirable silica particles caused greater lung injury than equal exposures to particles aged for sixty days or more.

<b>Skin corrosion/irritation:</b>	Not classified.
<b>Serious eye damage/irritation:</b>	Not classified.
<b>Respiratory or skin sensitisation:</b>	Not classified.
<b>Germ cell mutagenicity:</b>	Not classified.
<b>Carcinogenicity:</b>	Concrete is not listed as a carcinogen by IARC, the NTP, or OSHA. Crystalline silica is listed as a carcinogenic (Group 1) according to IARC. ACGIH classified crystalline silica as a suspected human carcinogen.
<b>Reproductive toxicity:</b>	Not classified.
<b>Symptoms/injuries after inhalation:</b>	Coughing, sneezing. Individuals with respiratory disorders may find these conditions aggravated by exposure to concrete dust.
<b>Symptoms/injuries after eye contact:</b>	Causes eye irritation.
<b>Symptoms/injuries after ingestion:</b>	No symptoms expected.

## SECTION 12 – Ecological Information

<b>TOXICITY:</b>	Generally considered chemically inert in the environment.
<b>Persistence and degradability:</b>	Not likely to biodegrade.
<b>Bioaccumulative potential:</b>	Based on ingredients, not likely to bioaccumulate.
<b>Mobility in soil:</b>	Not established. Not likely to have leaching potential.



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## SECTION 13 – Disposal Considerations

### WASTE TREATMENT METHODS

Regional legislation (waste):

Dispose of waste product and unused product in compliance with federal, state, and local requirements. Used material which has become contaminated by other products or substances may have significantly different characteristics based on the contaminant and should be evaluated accordingly.

Waste disposal recommendations:

Where possible, recycling is preferable to disposal.

Additional information:

Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles.

## SECTION 14 – Transport Information

### IN ACCORDANCE WITH ICAO/IATA/DOT/TDG

UN Number: N/A

UN-NO. (DOT): N/A

DDOT NA no.: N/A

UN proper shipping name

Department of Transportation (DOT): N/A

### ADDITIONAL INFORMATION

Other information:

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

## SECTION 15 – Regulatory Information

US Federal regulations:

N/A. Neither SARA 313 nor CERCLA 103 applies. Product is not hazardous per 40 CFR 261.

US State regulations:

This product contains 0.1% 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. Crystalline silica, iron oxide and cobalt are on the New Jersey Right to Know Hazardous Substance List.

Component	State Regulatory Lists
Crystalline Silica, Quartz (CAS #14808-60-7)	CA, FL, MA, MN, NJ, PA
Crystalline Silica, Quartz (CAS #14808-60-7)	Canadian WHMIS Ingredient Disclosure List

## SECTION 16 – Other Information

Indication of changes:

05/14/2015

Other information:

This document has been prepared in accordance with the SDS requirement of the OSHA Hazard Communication Standard 29 CFR 1910.1200.



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**GHS Full Text Phrases:**

Eye Irritant 2B	Causes eye irritation Category 2B
H313	May be harmful in contact with skin
H320	Causes eye irritation
H372	Causes damage to respiratory system (silicosis) through prolonged or repeated exposure to inhaled dust

**NFPA health hazard:**

**1** – Exposure could cause irritation but only minor residual injury even if no treatment is given

**NFPA fire hazard:**

**0** – Not combustible

**NFPA reactivity:**

**0** – Stable – not reactive

**HMIS III RATING**

**Health:**

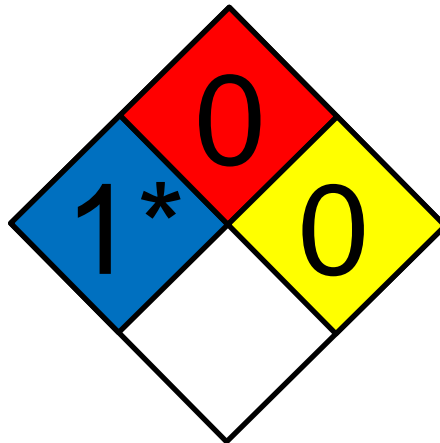
**1\*** - Slight hazard, irritation or minor reversible injury possible. Chronic (long-term) health effects may result from repeated overexposure.

**Flammability:**

**0** – Materials that will not burn

**Physical:**

**0** – Minimal hazard – materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-explosive.



Notice: HBP Pipe & Precast, LLC believes that the information contained in this Safety Data Sheet is accurate. The information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.