

MATERIAL SAFETY DATA SHEET

Identity: Concrete Masonry Products (concrete block, precast concrete, segmental retaining wall units, concrete pavers, cast stone and architectural concrete products)

SECTION I - IDENTIFICATION

Manufacturer's Name: Reading Rock, Inc.	Telephone Number: (513) 874-2345
Address: 4600 Devitt Drive, Cincinnati, OH 45246	Date Prepared/Revised: October 1, 2014
Material Description, Proper Shipping Name Concrete Masonry Products (RockCast, Prairie Stone, PaverLock, Allan Block, Bedford, AultWall, GreenWall, Bellewood, Recon, Capella Slab Pavers, ADA Pavers, ReadyBrick, Reading Rock CMU, and CheckerBlock)	

SECTION II – HAZARDS IDENTIFICATION

Concrete products are a mixture of fine and coarse aggregates, cement, pigments, chemical admixtures and water. Finished products should produce no significant hazards from typical handling and use and normal breakage.

Operations that generate airborne dusts from concrete masonry products may produce hazards from chemical substance present in the original ingredients. Prolonged exposure to mineral dusts without appropriate exposure controls and personal protective equipment may give rise to illnesses including silicosis, bronchitis, pneumoconiosis and lung cancer. The main symptoms of these illnesses are difficulty in breathing and coughing,

Hazardous Components: Silica, Crystalline Quartz and Cristobalite (respirable), Calcium Oxide and Nuisance Dusts (such as Portland Cement, Metal Oxides, Limestone and other Calcium compounds).

Specific Chemical Identity: Silica Dioxide SiO₂ (CAS 14808-60-7), Calcium Oxide (CAS 1305-78-8), Portland Cement (CAS 65997-15-1), Aluminum Oxide (CAS 1344-28-1), Iron Oxide (CAS 1309-37-1), Calcium Carbonate (CAS 1317-65-3), Calcium Hydroxide (CAS 1305-62-0), Calcium Silicate (CAS 1344-95-2)

Common Ingredients: Silica, Flint, Crystalline Free Silica, Quartz, Ground Silica, Silica Flour, Fly Ash, Cement, Rock, Gravel, Sand, Ground Granulated Blast Furnace Slag, Iron ore.

CAS Registry No.	Chemical Name (s)	OSHA PEL	ACGIH TLV	Other Limits Recommended
14808-60-7	Silicon Dioxide SiO ₂ (Silica Crystalline Quartz)	10 mg/m ³	0.025 mg/m ³	0.05 mg/m ³
1305-78-8	Calcium Oxide	5 mg/m ³	2 mg/m ³	2 mg/m ³
	Nuisance Dusts (Portland Cement, Limestone/ Calcium Carbonate, Calcium Silicate, Calcium Hydroxide, Aluminum Oxide and Iron Oxide)	15 mg/m ³	10 mg/m ³	10 mg/m ³



SECTION III – COMPOSITION / INFORMATION

Sand, Aggregate, Cementitious Material, Pigments, Admixtures & water are combined and processed to form concrete masonry products.

SECTION IV – FIRST-AID MEASURES

4.1 Eye contact: On contact with concrete dust, immediately flush generously with eyewash solution or clean water. If irritation persists seek medical attention.

4.2 Skin contact: On contact with concrete dust, wash with soap and water. If irritation persists seek medical attention.

4.3 Ingestion: If ingestion of concrete dust causes problems, remove from exposure and seek medical attention if required.

4.4 Inhalation: For gross inhalation of concrete dust, remove the affected person immediately to fresh air and seek medical attention if required.

SECTION V – FIREFIGHTING MEASURES

Concrete is not flammable and will not facilitate combustion with other materials.

Flash Point (Method Used):	N/A	Extinguishing Media:	N/A
Flammable Limits:	N/A	Special Fire Fighting Procedures:	N/A
LEL: N/A	UEL: N/A	Unusual Fire and Explosion Hazards:	N/A

SECTION VI – ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions: See section 8 for exposure controls and personal protection.

6.2 Cleaning Up: No special requirements, where possible use mechanical aids to reduce the risk of manual handling injury.

6.3 Environmental Measures: Does not constitute a significant environmental hazard.

SECTION VII – HANDLING AND STORAGE**7.1 Handling:**

- Concrete dust:

Avoid dry cutting or grinding of concrete products wherever possible as this 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. Wet cutting reduces the amount of dust generated and is a preferable method of cutting.

- Manual handling: Care should be taken when manually handling concrete products. Good lifting practices should be followed at all times to avoid the risk of injuries such as sprains, strains or ruptures.

7.2 Storage:

Stocking and staging areas should always be level with a firm base to avoid pallet collapse when the outer wrapping or bands are removed. As a safety precaution, we advise customers not to stack products. Care should be taken when removing shrink wrapping or bands to avoid loose blocks, pavers, etc. falling out of the stack. High tensioned straps can spring away when the tension is released. Shrink wrapping or plastic banding strips must not be burnt as toxic fumes are given off.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection (Specify Type): Where required, use NIOSH/MSHA approved respiratory protection in compliance with OSHA regulations (i.e., 1910.134 et.al.)		
The following chart specifies the type of respirators which may provide respiratory protections for crystalline silica:		
RESPIRATORY PROTECTION FOR CRYSTALLINE SILICA		
CONDITION	MINIMUM RESPIRATORY PROTECTION*	
Particulate Concentration		
Up to 5 x PEL	Any dust respirator	
Up to 10 x PEL	Any dust respirator, except single-use or quarter-mask respirator. Any fume respirator or high efficiency particulate filter respirator. Any supplied-air respirator. Any self-contained breathing apparatus	
Up to 50 x PEL	A high efficiency particulate filter respirator with a full facepiece. Any supplied-air respirator with a full facepiece, helmet, or hood. Any self-contained breathing apparatus with a full facepiece.	
Up to 500 x PEL	A powered air-purifying respirator with a high efficiency particulate filter. A type C supplied-air respirator operated in a pressure-demand or other positive pressure or continuous-flow mode.	
Greater than 500 x PEL or entry and escape from unknown concentrations	Self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive mode. A combination respirator which includes a Type C supplied-air respirator with a full facepiece operated in pressure-demand or other positive pressure continuous-flow mode and an auxiliary self contained breathing apparatus operated in pressure-demand or other positive pressure mode.	
*Only NIOSH-approved or MSHA-approved equipment should be used (see 29 CFR 1910.134). See also ANSI Standard Z88.2-1980 “Practices for Respiratory Protection”		
Ventilation:	Local Exhaust: When dry sawing or grinding concrete masonry products, use sufficient local exhaust to reduce the level of respirable dust to the PEL. See ACGIH “Industrial Ventilation, A Manual of Recommended Practice,” latest edition.	Special See “Other Precautions”
	Manual Handling and Storage See Section VII.	Other See “Other Precautions”
Protective Gloves (Specific Type): - Optional	Other Protective Equipment: - Optional	
Eye Protection (Specific Type): - When sawing or grinding concrete masonry products, wear protective shield or tight fitting goggles.		

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Odorless, solid concrete formed from a mixture of sand, aggregate, cementitious material, pigments, admixtures and water. Other chemical properties not applicable under ambient conditions.			
Boiling Point:	N/A	Vapor Density:	N/A
Vapor Pressure:	N/A	Solubility in Water:	Not Soluble
Appearance and Odor:	Odorless Solid	Specific Gravity (H₂O = 1):	N/A
Melting Point:	N/A	Evaporation Rate:	N/A

SECTION X –STABILITY AND REACTIVITY

Conditions contributing to chemical instability: None
Hazardous decomposition or byproducts: None
Special Precautions: May react with strong acids due to alkaline nature of the materials used to produce concrete products

SECTION XI –TOXOLOGICAL INFORMATION

11.1 Short Term Effects: Dust from grinding or dry-cutting of hardened concrete products may cause eye irritation
11.2 Long Term Effects: Prolonged exposure to mineral dusts without appropriate exposure controls and personal protective equipment may give rise to illnesses including silicosis, bronchitis, pneumoconiosis and lung cancer.

SECTION XII –ECOLOGICAL INFORMATION

When the concrete masonry products are used as intended, no environmental impact is anticipated.

SECTION XIII –DISPOSAL CONSIDERATIONS

Normal breakage and unused pieces 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 regulations.

SECTION XIV –TRANSPORT INFORMATION

Not hazardous therefore no classification for conveyance required.

SECTION XV –REGULATORY INFORMATION

Not classified as dangerous or hazardous.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful health effects, which may be caused by exposure to airborne dust particles created by dry sawing or grinding of our products. Customers/users of concrete masonry products must comply with all applicable health and safety laws, regulations, and orders.

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