



MATERIAL SAFETY DATA SHEET

ENTITY

Concrete Masonry Products (Pavers)

SECTION I

Manufacturer's Name:

Pacific Interlock Pavingstone Inc.
1895 San Felipe Road
Hollister, CA 95023

Emergency Telephone Number
(831) 637-9163

Date Prepared: 04-07-2010
Preparer: Timothy Donovan

SECTION II – Hazardous Ingredients/Identity information

Hazardous Components: Finished Concrete and Masonry Products typically contain the following components that meet the hazard definitions and reporting requirements in 29CFR 1910.1200, the OSHA Hazard Communication Standard

- Sand and Aggregates (Quartz)
- Cement

Specific Chemical Identity: Silicon Dioxide SiO₂ (CA 14808-60-07)
Cement (CAS 65997-15-1)

Common Names: Sand also know as Quartz, Flint, Crystalline Free Silica, Silica Ground Silica, Silica Flour
Cement also know as Portland cement, cement kiln dust, kiln precipitator catch, waste kiln dust

Exposure Standards of Hazardous Components:

SUBSTANCE	OSHA PEL-TWA	ACGGIH TLV-TWA R	NIOSH REL-TWA
Sand and Aggregates containing crystalline	See PEL Formula below) silica quartz (as Quartz. for respirable silicaquartz	0.05 mg/m ³ (Respirable dust)	0.05 mg/m ³ (Respirable dust)
Cement (as Portland Cement) –Treated as Nuisance Particles	15 mg/m ³ Total dust 5 mg/m ³ Respirable dust	10 mg/m ³ Total dust	10mg/m ³ total dust 5 mg/m ³ Respirable dust

OSHA PEL:

The Occupational Safety and Health Administration (OSHA) established Permissible Exposure Limits for the substances potentially present as components of concrete masonry dust for 8-hour time-weighted average (TWA) exposures. The OSHA PELs are legal control limits found in 29 CFR 1910.1000, Air Contaminants, TableZ-1, Table Z-2 and TableZ-3. Exposure to respirable airborne crystalline silica shall not exceed an 8 hour TWA limit as calculated using the formula below from 1910.1000 Table Z-3 Mineral Dust:

Silica, Crystalline Quartz (respirable Dust) **10 mg/m³ % Quartz + 2**

Respirable dust are particles collected after passing though an appropriate size-selective sampling device meeting the aerodynamic diameter criterion listed in 1910.1000 Table Z-3.



ACGIH TLV: The American Conference of Government Industrial Hygienists established Threshold Limit Values for the substances potentially present as components of concrete masonry dust for 8 hour TWA. The ACGIH TLVs are exposure standards recommended as a matter of good safety and health practice.

NIOSH REL: The National Institute for Occupational Safety and Health established maximum standard permissible limits as determined by a full-shift sample up to a 10 hour work day, 40-hour week.

Cement (as Portland Cement) is currently treated primarily as Nuisance Particulate or Nuisance Dust by OSHA, the ACGIH and by NIOSH.

SECTION III – Physical/Chemical Characteristics

Boiling Point: N/A	Specific Gravity: N/A
Vapor Pressure: N/A	Melting Point: N/A
Vapor Density: N/A	Evaporation Rate: N/A (Butyl Acetate =1)
Solubility in Water: N/A	
Appearance and Odor: Odorless Solid	

SECTION IV– Fire and Explosion Hazard Data

Flash Point: N/A	
Flammable Limits: N/A	LEL: N/A UEL: N/A
Extinguisher Media: N/A	
Special Fire Fighting Procedures:	None
Unusual Fire and Explosion Hazards: None	

SECTION V – Reactivity Data

Stability: Unstable__ Stable: X	Conditions to avoid: None
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Incompatibility (Material to avoid): Cement, one of the components of the product is alkaline. As such, it is incompatible with strong acids, ammonium salts and phosphorous.

Hazardous Decompositions or By-Products: NONE

Hazardous Polymerization: May Occur ___ Will Not Occur X **Condition to Avoid:** None



SECTION VI – Health Hazard Data

Health Hazards (Acute and Chronic):

Mechanical processes such as dry sawing or grinding of concrete masonry products may result in the release of dust containing respirable crystalline silica-quartz. Failure to use appropriate respiratory protection during prolonged exposure to respirable crystalline quartz may cause delayed (chronic) lung injury (silicosis) and heavy short term exposure may cause acute or rapidly developing silicosis.

Route(s) Entry: *Inhalation?* Yes *Skin?* Yes *Ingestion?* Yes

Wet concrete products may cause irritation of the skin after direct skin contact to the alkaline nature of components blended into the wet concrete slurry. Dry concrete dust are unlikely to produce skin irritation under expected conditions of exposure; however, if skin irritation is experience, efforts should be made to prevent skin contact using good hygiene and protective equipment practices.

Carcinogenicity:

Finish concrete products are not considered carcinogenic. Concrete dust created by mechanical process may contain respirable crystalline silica-quartz with carcinogenic classifications:

NTP: Yes IARCH Monographs: Yes OSHA Regulated: Yes

Signs and Symptoms of Exposure: Undue breathlessness, wheezing, cough and sputum production.

Medical Conditions Generally Aggravated by Exposure:

In pre-existing lung diseases such as emphysema or asthma pulmonary function may be reduced by inhalation of respirable crystalline quartz. Also, long scarring produced by such inhalation may lead to progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and might increase susceptibility of pulmonary tuberculosis.

Emergency and First Aid Procedures:

For sand in eyes dry caused sawing or grinding operations, immediately flush generously with water for 15 minutes. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed and seek medical attention.

SECTION VII – Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled:

Utilize wet methods to minimize airborne dust concentrations whenever feasible. When dry sawing or grinding, use dustless systems for handling, storage and cleanup so that airborne dust does not exceed the PEL concentrations. Use adequate ventilation, dust preventive and collective equipment and good housekeeping. Do not allow dust to collect on walls, floors, sill, ledges, machinery or equipment. Maintain clean and adequate respiratory protections in accordance with OSHA regulations.

Waste Disposal Method:

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 regulations.

Precautions to be Taken in Handling and Storing: None

Other Precautions:

See OSHA Hazard Communication Rule 29CFR Sections 1910.1200, 1915.99, 1917.28, 1918.90, 1926.59, 1928.21 and state and local worker or community "right to know" laws and regulations.



SECTION VIII – Control Measures

Respiratory Protection:

Use NIOSH or MSHA approved respiratory protective equipment when sawing or grinding operations are conducted.

Mechanical: In confine space **Special:** None **Other:** None

Eye Protection:

When sawing or grinding concrete masonry products, wear protective shields or tight fitting goggles (Safety Glasses).

Other Protective Clothing or Equipment:

Optional

Work/Hygienic Practices:

Utilize wet methods for cutting, sampling or cleaning tasks that produce airborne dust whenever feasible. Avoid creating and breathing dust. Minimize skin contact by using good hygiene and protective equipment practices.

The information and recommendations contained herein are based upon data believed to be correct. However, no assurance, expressed 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 dust containing respirable crystalline quartz created by sawing or grinding operations of our products.