



**Material Safety Data Sheet**  
**Belgard® Paving Stone and Retaining Wall Products**

**Section 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** Belgard® Paving Stone and Retaining Wall Products

**Manufacturer/Supplier:** Oldcastle® Architectural, Inc.  
375 Northridge Road Suite 350  
Atlanta, Georgia 30350

**Phone Number:** 770-804-3363 Fax 770-804-3369  
Service 8:00 to 5:00 Eastern, Mon. - Fri.

**Emergency Phone:** 770-804-3363

**Date of Preparation:** 10 Mar 2011

**Section 2: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**CAUTION**

Dry cutting, sanding, grinding or drilling of manufactured concrete products can produce dust which requires the appropriate use of protective measures to limit exposure. A natural chemical reaction during the hydration of concrete product dust can develop sufficient heat to cause severe burns in the event of contact with skin. These burns may possibly result in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** Irritating to eyes. May cause burns in the presence of moisture.

**Skin:** May cause skin irritation. May cause burns in the presence of moisture.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin.

Concrete dust can cause dry skin.

**Medical Conditions Aggravated By Exposure:** Because of its irritating properties, dust may aggravate preexisting skin, eye, and respiratory conditions.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

This product is a hazardous chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This product dust is a hazardous chemical as defined by NOM-018-STPS-2000.

**Potential Environmental Effects:** No ecological consideration when used according to directions. Normal dilution of this product dust into drains, sewers, septic systems and treatment plants is not considered environmentally harmful. See Section 12 for more information.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	UN Number	H / F / R / Special*	CAS #	Wt. %
Silica, crystalline, quartz	Not available.	Not available.	14808-60-7	90 - 100
Portland cement	Not available.	2/0/0	65997-15-1	10 - 20

\* Per NOM-018-STPS-2000

### Section 4: FIRST AID MEASURES

<b>Eye Contact:</b>	In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.
<b>Skin Contact:</b>	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
<b>Ingestion:</b>	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
<b>General Advice:</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
<b>Note to Physicians:</b>	Symptoms may not appear immediately.

### Section 5: FIRE FIGHTING MEASURES

**Flammability:** Not flammable by WHMIS/OSHA criteria.

**Means of Extinguishing:**

**Suitable Extinguishing Media:** Treat for surrounding material.

**Unsuitable Extinguishing Media:** Not available.

**Products of Combustion:** May include, and are not limited to: oxides of carbon.

**Explosion Data:**

**Sensitivity to Mechanical Impact:** Not available.

**Sensitivity to Static Discharge:** Not available.

**Protection of Firefighters:** Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

**Section 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental Precautions:** If large quantities enter a waterway, advise local authorities.

**Methods for Containment:** Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Clean-Up:** Vacuum or sweep material and place in a disposal container.

**Other Information:** Not available.

**Section 7: HANDLING AND STORAGE**

**Handling:**

Avoid contact with skin and eyes. Do not swallow. Good housekeeping is important to prevent accumulation of dust. Avoid generating dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking.

**Storage:**

Keep out of the reach of children. Store in dust-tight, dry, labeled containers. Keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area

**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Guidelines**

**Exposure Limits**

**Ingredient**

**OSHA-PEL**

**ACGIH-TLV**

Silica, crystalline, quartz

((10 mg/m<sup>3</sup>)/(%SiO<sub>2</sub>+2) TWA (resp));  
((30 mg/m<sup>3</sup>)/(%SiO<sub>2</sub>+2) TWA (total));  
((250)/(%SiO<sub>2</sub>+5) mppcf TWA (resp))

0.025 mg/m<sup>3</sup>

Portland cement

15 mg/m<sup>3</sup> (total); 5 mg/m<sup>3</sup> (resp)      10 mg/m<sup>3</sup> (total)

**Engineering Controls:** When dry cutting, sanding, grinding or drilling a concrete product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits.

**Personal Protective Equipment:**

**Eye/Face Protection:** Wear approved eye protection (properly fitted dust- or splashproof chemical safety goggles) and face protection (face shield).

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Powder.
<b>Color:</b>	Various.
<b>Odour:</b>	Characteristic.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Solid.
<b>pH:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	Not available.
<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Specific Gravity:</b>	Not available.
<b>Solubility in Water:</b>	Not available.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	Not applicable.
<b>VOC content, wt. %:</b>	0%, Not applicable; 0 wt, Not applicable

### Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions. Keep dry in storage.

**Conditions of Reactivity:** Dust reacts with water .

**Incompatible Materials:** None known.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of

normal use.

## Section 11: TOXICOLOGY INFORMATION

### EFFECTS OF ACUTE EXPOSURE

Ingredient	IDLH	LD50 (oral)	LC50
Silica, crystalline, quartz	25 mg/m <sup>3</sup>	500 mg/kg, rat	Not available.
Portland cement	5,000 mg/m <sup>3</sup>	Not available.	Not available.

**Eye:** Irritating to eyes. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** May cause skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation.

### EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Lungs.

**Chronic Effects:** Hazardous by WHMIS/OSHA criteria.

Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

**Carcinogenicity:** Hazardous by WHMIS/OSHA criteria.

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen *
Silica, crystalline, quartz	G-A2, I-1, N-1, CP65
Portland cement	Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS/OSHA criteria.

**Reproductive Effects:** Not hazardous by WHMIS/OSHA criteria.

**Developmental Effects:**

**Teratogenicity:** Not hazardous by WHMIS/OSHA criteria.

**Embryotoxicity:** Not hazardous by WHMIS/OSHA criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS/OSHA criteria.

**Skin Sensitization:** Not hazardous by WHMIS/OSHA criteria.

**Toxicologically Synergistic Materials:** Not available.

#### Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful.

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

#### Section 13: DISPOSAL CONSIDERATIONS

**Disposal Instructions:**

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

#### Section 14: TRANSPORTATION INFORMATION

**DOT Classification**

Not regulated

**TDG Classification**

Not regulated

**NOM-004-SCT2-1994 Classification**

Not regulate

#### Section 15: REGULATORY INFORMATION

**Federal Regulations**

**Canadian:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**US:** MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200).

**Mexico:** MSDS prepared pursuant to NOM-018-STPS-2000.

**SARA Title III**

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Silica, crystalline, quartz	Not listed.	Not listed.	Not listed.	Not listed.
Portland cement	Not listed.	Not listed.	Not listed.	Not listed.

**State Regulations**

**California Proposition 65:**

This product contains a chemical known to the State of California to cause cancer (Silica, crystalline, quartz).

**Global Inventories**

Ingredient	Canada DSL/NDSL	USA TSCA
Silica, crystalline, quartz	DSL	Yes.
Portland cement	DSL	Yes.

**HMIS - Hazardous Materials Identification System**

Health - 2\*      Flammability - 0      Physical Hazard - 0

**NFPA - National Fire Protection Association:**

Health - 2      Fire - 0      Reactivity - 0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

**WHMIS Classification(s):**

- Class D2A - Carcinogenicity
- Class D2A - Chronic Toxic Effects

**WHMIS Hazard Symbols:**



**Mexico Classification:**



Blue = Health      Red = Flammability      Yellow = Reactivity      White = Special

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

**SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:**

**OSHA (O)**      Occupational Safety and Health Administration.

**ACGIH (G)** American Conference of Governmental Industrial Hygienists.

A1 - Confirmed human carcinogen.

A2 - Suspected human carcinogen.

A3 - Animal carcinogen.

A4 - Not classifiable as a human carcinogen.

A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

1 - The agent (mixture) is carcinogenic to humans.

2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in

humans and sufficient evidence of carcinogenicity in experimental animals.

2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in

humans in the absence of sufficient evidence of carcinogenicity in experimental animals.

3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

1 - Known to be carcinogens.

2 - Reasonably anticipated to be carcinogens.

<b>Section 16: OTHER INFORMATION</b>
--------------------------------------

**Disclaimer:**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

**Prepared by:**

Leonard Browning

Oldcastle® Architectural, Inc.

Phone: **770-804-3363**