

# Material Safety Data Sheet



Prepared April 20, 2007

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Section 1: Product & Company Identification			
Product Name	<b>BORAL® THIN BRICK</b>	Company Information	Boral Bricks Inc. 200 Mansell Court East, Suite 305 Roswell, GA 30076 1-877-257-9433
		CHEMTREC (24/7) Technical Support	1-800-424-9300 1-800-526-7255 (800-5BORAL5)

Section 2: Composition / Information on Ingredients			
Material	CAS Number	Percent by Weight	
Quartz	14808-60-7	38-39	
Non-hazardous Ingredients	Not available	30-45	
Pumice	1332-09-8	10-11	
Iron Oxide	1309-37-1	0-8	

Component Related Regulatory Information: This product may be regulated, have exposure limits or other information identified as the following: Silica, crystalline (general form). As provided, this material is in a cured form and the above components are not readily available; however, if dusts are generated this product may be considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Section 3: Hazards Identification	
<b>Appearance and Odor:</b>	Cured concrete product of various shapes, sizes and colors.
<b>Emergency Overview:</b>	No unusual conditions are expected from this product. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

<b>Medical Condition Aggravated by Exposure</b>	Chronic respiratory or skin conditions may temporarily worsen from exposure to dust from this product.
<b>Eyes and Skin</b>	Contact with eyes may cause slight irritation, redness, tearing and blurred vision which is transient. Prolonged contact with skin may cause itching and short term irritation.
<b>Inhalation</b>	Dusts of this product may cause irritation of the nose, throat, and respiratory tract. This product contains crystalline silica. Prolonged and repeated inhalation of respirable crystalline silica can cause silicosis, a chronic lung disease characterized by fibrosis and scarring of the lung tissue resulting in a decrease in lung function, breathlessness, wheezing, coughing and sputum production. Short term overexposure to extremely high concentrations of respirable crystalline silica can produce acute silicosis, a disease that can rapidly progress within months of initial overexposure and reportedly has caused death within 1-2 years.
<b>Ingestion</b>	Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Section 4: First Aid Measures	
<b>Eyes and Skin</b>	Immediately flush eyes with warm water. Remove contact lenses if applicable, and continue flushing for at least 15 minutes. If eye irritation persists, seek medical attention. Wash skin thoroughly with soap and warm water followed by a rinse with cool water. If irritation persists, seek medical attention.
<b>Inhalation</b>	If inhaled, immediately move the person to fresh air. If respiratory irritation or other effects persist, seek medical attention.
<b>Ingestion</b>	Ingestion of this material is unlikely. If it does occur, watch the person for several days to make sure that partial or complete intestinal obstruction does not occur. Do not induce vomiting unless directed to do so by medical personnel.

Section 5: Fire Fighting Measures			
<b>Flash Point</b>	None	<b>Auto Ignition Temperature</b>	N/A
<b>Flammable Limits in Air</b>	N/A	<b>Unusual Fire/Explosion Hazard</b>	None
<b>Fire Fighting Media and Procedures</b>	Product is classified as non-flammable. Use extinguishing media appropriate for the surrounding fires. Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire. Wear protective clothing ensemble as defined in NFPA 1500 (1997, or as updated).		

Section 6: Accidental Release Measures			
<b>Disposal and Containment</b>	Wear protective equipment during cleanup and avoid the generation of dust. If concentrated on a surface, sweep up or gather material and place in a suitable container for disposal as a non-hazardous waste. Wash spill area thoroughly. Dust from cutting, grinding or drilling this material will settle out of the air, where it can be scooped up for disposal as a non-hazardous waste.		
<b>Neutralizing Chemicals</b>	None required.		
Section 7: Handling and Storage			
<b>Handling Procedures</b>	No special procedures are required for this material. Avoid breathing dusts from this material. Avoid dust contact with skin or eyes. Minimize the generation of dust.		
<b>Storage Precautions</b>	No special procedures are required for this material.		
Section 8: Exposure Controls and Personal Protection			
<b>Component Exposure Limits</b>	ACGIH and OSHA exposure limit lists have been checked for those components with CAS registry numbers: Quartz (14808-60-7): ACGIH: 0.05 mg/m <sup>3</sup> TWA (TLV for the respirable fraction of dust) OSHA: respirable dust 0.1 mg/m <sup>3</sup> TWA Iron Oxide (1309-37-1): ACGIH: 5 mg/m <sup>3</sup> TWA (welding fumes, dust, total particulate as Fe) OSHA: fume 10 mg/m <sup>3</sup> TWA		
<b>Ventilation</b>	General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below occupational exposure limits. Dust collection systems may be necessary in some operations.		
<b>Eye/Face Protection</b>	Wear safety goggles or safety glasses with shields approved by NIOSH		
<b>Skin Protection</b>	Wear leather or appropriate work gloves to eliminate abrasions or irritations.		
<b>Respiratory Protection</b>	Wear a properly fitted NIOSH approved disposable N95 series or equivalent dust respirator, such as the 3M model 8210 (formerly 8710) or model 8291 (formerly 9900) in high humidity environments or in any dusty environment or when the product is mechanically altered such as grinding, cutting, drilling, crushing, milling or sanding. Use respiratory protection in accordance with your company's respiratory protection program, local regulations and OSHA regulations under 29 CFR 1910.134.		
Section 9: Physical and Chemical Properties			
<b>Boiling Point</b>	N/A	<b>pH</b>	N/A
<b>Vapor Pressure</b>	N/A	<b>Specific Gravity</b>	N/A
<b>Vapor Density</b>	N/A	<b>Melting Point</b>	N/A
<b>Water Solubility</b>	N/A	<b>Evaporation Rate</b>	N/A
<b>Odor</b>	N/A	<b>Physical Form</b>	Solid
<b>Appearance</b>	Cured concrete product of various shapes, sizes and colors		
Section 10: Reactivity Data			
<b>Stability</b>	This is a stable materials		
<b>Conditions to Avoid</b>	Avoid dispersion of dust in air		
<b>Incompatible Materials</b>	None expected		
<b>Hazardous Polymerization</b>	Will not occur		
<b>Hazardous Decomposition Products</b>	None identified		
Section 11: Toxicological Information			
<b>Acute and Chronic Toxicity:</b>			
<b>A: General Product Information</b>			
Dusts from cutting and drilling may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. Higher exposures may cause difficulty breathing, congestion, and chest tightness.			
<b>B: Component Analysis - LD50/LC50</b>			
No LD50/LC50's are available for this product's components.			

**Section 11: Toxicological Information (continued)**

**Carcinogenicity:**

**A: General Product Information**

Crystalline Silica: The International Agency for Research on Cancer (IARC) recently reviewed existing epidemiological data and concluded that crystalline silica inhaled in the form of quartz from occupational sources is a known human carcinogen (Group 1). In making the assessment, the IARC noted that carcinogenicity was not detected in all industrial circumstances studied. However, IARC reported that a majority of studies indicated an elevated mortality for lung cancer among silica-exposed workers. IARC noted that increased rates of lung cancer were reported among some workers in ore mines, quarries, foundries, ceramics, granite and stone cutting industries. The workers in some of these studies were exposed to other potential respiratory carcinogens such as arsenic, radon, diesel exhaust, polycyclic aromatic hydrocarbons or cadmium. The IARC reviewed animal studies and concluded that there is sufficient evidence in experimental animals for the carcinogenicity of quartz. Silica-crystalline quartz has resulted in liver, blood, and lung tumors in rats by inhalation, intraperitoneal and intravenous injection, intratracheal and intrapleural administration.

**B: Component Carcinogenicity**

ACGIH, IARC, OSHA, and NTP carcinogen lists have been checked for those components with CAS registry numbers:

Quartz (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen

NTP: Known Carcinogen (Select Carcinogen)

IARC: Monograph 68, 1997; (inhaled in the form of quartz or cristobalite from occupational sources) Group 1 - Carcinogenic to humans

Iron Oxide (1309-37-1)

ACGIH: A4 - Not classifiable as a Human Carcinogen (dust and fume, as Fe)

IARC: Supplement 7, 1987; Monograph 1, 1972 (Group 3 - not classifiable)

**Section 12: Ecological Information**

**Stability Ecotoxicity or Environmental Fate**

No data available for this product

**Section 13: Disposal Considerations**

**US EPA Waste Number & Descriptions:**

**A: General Product Information**

No components are identified as hazardous wastes

**B: Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions: Consult appropriate authorities before disposing of this material.

**Section 14: Transportation Information**

**US DOT Information**

Shipping Name	Not regulated for transport
Hazard Class	None
UN/NA #	None
Packing Group	None
Required Label(s)	None
Additional Info	None

**TDG Information**

Shipping Name	Not regulated for transport
Hazard Class	None
UN/NA #	None
Packing Group	None
Required Label(s)	None
Additional Info	None

**Section 15: Regulatory Information**

**US Federal Regulations:**

**A: General Product Information**

No information available for this product.

**B: Component Analysis**

None of the product components are listed under the SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

**C: Clean Air Act**

None of this product's components are listed on the Clean Air Act - 1990 Hazardous Air Pollutants List.

**State Regulations:**

**A: General Product Information**

No additional information available.

**B: Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

<u>SARA</u>	<u>311/312</u>
Acute Health Hazard:	Yes (If dusts generated)
Chronic Health Hazard:	Yes (If dusts generated)
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactive Hazard:	No

Component	CAS Number	CA	FL	MA	MN	NJ	PA
Quartz	14808-60-7	No	Yes	Yes	Yes	Yes	Yes
Iron Oxide	1309-37-1	Yes	Yes	Yes	Yes	Yes	Yes

**Section 15: Regulatory Information**

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):  
**WARNING!** This product contains a chemical known to the state of California to cause cancer.

**Other Regulations:****A: General Product Information**

No additional information available.

**B: Component Analysis - Inventory**

Component	CAS Number	TSCA	DSL	EINECS
Quartz	14808-60-7	Yes	Yes	Yes
Pumice	1332-09-8	Yes	Yes	No
Iron Oxide	1309-37-1	Yes	Yes	Yes

**C: Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS Number	
Quartz	14808-60-7	1% item 1406 (1491)
Iron Oxide	1309-37-1	1% item 762 (1327)

WHMIS Status: Controlled

WHMIS Classification: D2A-Carcinogenicity (If dusts generated), D2B-Irritation (If dusts generated)

**Section 16: Other Information**

HMIS and NFPA Ratings	Category	HMIS	NFPA
	Health	1*	1
	Flammability	0	0
	Reactivity	0	0

**NFPA Unusual Hazards:** None

**HMIS Personal Protection:** Supplied by user depending upon use.

Reasonable care has been taken in the preparation of this information. The information contained in this Material Safety Data Sheet is believed to be reliable. No guarantee is implied or expressed regarding the accuracy of this information or the use of the product since the conditions for use are beyond our control. Nothing contained herein should be construed as a recommendation to use this product in conflict with existing patents covering any material or its use. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

**Key/Legend:**

ACGIH - American Conference of Governmental Industrial Hygienists  
 CAA - Clean Air Act  
 CERCLA - Comprehensive Environmental Response, Compensation and Liability Act  
 DSL - Canadian Domestic Substance List  
 EINECS - European Inventory of New and Existing Chemical Substances  
 EPA - Environmental Protection Agency  
 HMIS - Hazardous Material Identification System  
 IARC - International Agency for Research on Cancer  
 NIOSH - National Institute for Occupational Safety and Health  
 NTP - National Toxicology Program  
 OSHA - Occupational Safety and Health Administration  
 NFPA - National Fire Protection Association  
 SARA - Superfund Amendments and Reauthorization Act  
 TSCA - Toxic Substance Control Act  
 WHMIS - Workplace Hazardous Materials Information System