

Material Safety Data Sheet



Prepared April 20, 2007

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Section 1: Product & Company Identification

Product Name	BORAL® THIN BRICK	Company Information	Boral Bricks Inc. 200 Mansell Court East Suite 305 Roswell, GA 30076 1-877-257-9433
		Technical Support	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

Appearance and Odor: Cured concrete product of various shapes, sizes and colors.

Emergency Overview: 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.

Medical Condition Aggravated by Exposure	Chronic respiratory or skin conditions may temporarily worsen from exposure to dust from this product.
Eyes and Skin	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.
Inhalation	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.
Ingestion	Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Section 4: First Aid Measures

Eyes and Skin	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.
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Section 4: First Aid Measures	
Inhalation	If inhaled, immediately move the person to fresh air. If respiratory irritation or other effects persist, seek medical attention.
Ingestion	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			
Flash Point	none	Auto Ignition Temperature	N/A
Flammable Limits in Air	N/A	Unusual Fire/Explosion Hazard	none
Fire Fighting Media and Procedures	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	
Disposal and Containment	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.
Neutralizing Chemicals	None required.

Section 7: Handling and Storage	
Handling Procedures	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.
Storage Precautions	No special procedures are required for this material.

Section 8: Exposure Controls and Personal Protection	
Component Exposure Limits	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 ³ TWA (TLV for the respirable fraction of dust) OSHA: respirable dust 0.1 mg/m ³ TWA Iron Oxide (1309-37-1): ACGIH: 5 mg/m ³ TWA (welding fumes, dust, total particulate as Fe) OSHA: fume 10 mg/m ³ TWA
Ventilation	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.
Eye/Face Protection	Wear safety goggles or safety glasses with shields approved by NIOSH
Skin Protection	Wear leather or appropriate work gloves to eliminate abrasions or irritations.
Respiratory Protection	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			
Boiling Point	N/A	pH	N/A
Vapor Pressure	N/A	Specific Gravity	N/A
Vapor Density	N/A	Melting Point	N/A
Water Solubility	N/A	Evaporation Rate	N/A
Odor	N/A	Physical Form	Solid
Appearance	Cured concrete product of various shapes, sizes and colors		

Section 10: Reactivity Data	
Stability	This is a stable material
Conditions to Avoid	Avoid dispersion of dust in air
Incompatible Materials	None expected
Hazardous Polymerization	Will not occur
Hazardous Decomposition Products	None identified

Section 11: Toxicological Information	
Acute and Chronic Toxicity:	
A: General Product Information	
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: Component Analysis - LD50/LC50	
No LD50/LC50's are available for this product's components.	
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	
Ecotoxicity or Environmental Fate	No data available for this product

Section 13: Disposal Considerations	
<p>US EPA Waste Number & Descriptions:</p> <p>A: General Product Information No components are identified as hazardous wastes</p> <p>B: Component Waste Numbers No EPA Waste Numbers are applicable for this product's components.</p> <p>Disposal Instructions: Consult appropriate authorities before disposing of this material.</p>	

Section 14: Transportation Information	
<p>US DOT Information</p> <p>Shipping Name Hazard Class UN/NA # Packing Group Required Label(s) Additional Info</p> <p>TDG Information</p> <p>Shipping Name Hazard Class UN/NA # Packing Group Required Label(s) Additional Info</p>	<p>Not regulated for transport</p> <p>None None None None None</p> <p>Not regulated for transport</p> <p>None None None None None</p>

Section 15: Regulatory Information																									
<p>US Federal Regulations:</p> <p>A: General Product Information No information available for this product.</p> <p>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).</p> <p>C: Clean Air Act None of this product's components are listed on the Clean Air Act - 1990 Hazardous Air Pollutants List.</p> <p>State Regulations:</p> <p>A: General Product Information No additional information available.</p> <p>B: Component Analysis - State The following components appear on one or more of the following state hazardous substances lists:</p>																									
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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:

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; 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; HMIS = Hazardous Material Identification System; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act; DSL = Canadian Domestic Substance List; EINECS = European Inventory of New and Existing Chemical Substances; WHMIS = Workplace Hazardous Materials Information System; CAA = Clean Air Act

