

# Material Safety Data Sheet

This document has been prepared to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

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Boral  
Material  
Technologies



Classification: Calcium Aluminum Silicate

IDENTITY (As used on label and list)  
Boral Class C Fly Ash

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate

## Section I - Identity Information

Chemical Name NA	Emergency Telephone Number 1 (800) 424-9300 (CHEMTREC)
Chemical Family Coal Ash	Telephone Number for Information (210) 349-4069
Date Prepared 15-Feb-93	Date Revised 12-Apr-04

## Section II - Hazardous Ingredients

Ingredients	CAS#	% Weight	Exposure limits	
			OSHA PEL mg/m <sup>3</sup>	ACGIH TLV mg/m <sup>3</sup>
Calcium Aluminum Silicates	Various	>80%	15	10
Quartz (Respirable)	14808-60-7	Varies	10/(%SiO <sub>2</sub> +2)	0.05
Iron Compounds	Various	Varies	Not Available	Not Available
Calcium Oxide	1305-78-8	<2%	5	2

The above chemistries are provided for industrial hygiene and environmental purposes and are not intended to represent product specifications. Composition is variable depending on coal source and power plant characteristics. This data has been compiled from data believed to be reliable. Elements such as aluminum, arsenic, boron, calcium, chromium, cobalt, copper, gold, lead, molybdenum, nickel, silver, tin, titanium, vanadium, and zirconium may be present in trace amounts.

## Section III - Physical/Chemical Characteristics

Boiling Point (°F) Not Applicable	Specific Gravity (H <sub>2</sub> O=1) Not Applicable	NFPA HEALTH	1
Vapor Pressure (mm Hg.) Not Applicable	Percent Volatile by Mass (%) Not Applicable	NFPA FLAMMABILITY	0
Vapor Density (AIR=1) Not Applicable	Evaporation Rate (Butyl Acetate=1) Not Applicable	NFPA REACTIVITY	0
Solubility in Water Not Applicable	pH 4-12 (1%w/w)	NFPA SPECIAL:	

Appearance and Odor  
Grayish powder, odorless

## Section IV - Fire and Explosion Hazard Data

Flash Point Not Applicable	LEL Not Applicable	UEL Not Applicable
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Extinguishing Media  
Not Applicable

Special Fire Fighting Procedures  
Not Applicable

Unusual Fire and Explosion Hazards  
Not Applicable

## Section V - Reactivity Data

Material as shipped is not reactive

## Section VI - Health Hazard Data

### ACUTE EFFECTS OF OVEREXPOSURE:

Eye: May cause irritation by abrasion with dust.

Skin: Dust may cause irritation in hypersensitive individuals.

Inhalation: Dust may cause congestion and irritation in nasal and respiratory passages.

Ingestion: No known acute effects.

### CHRONIC EFFECTS OF OVEREXPOSURE:

Excessive exposures to respirable particulate (dust) over an extended period of time may result in the development of pulmonary diseases such as silicosis

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### CARCINOGENICITY:

The following carcinogenicity classifications for crystalline silica have been established by the following agencies:

OSHA: Not regulated as a carcinogen

IARC: Group 1 carcinogenic in humans

NIOSH: Carcinogen, with no further categorization

NTP: Known Carcinogen

### WARNING:

Material may contain crystalline silica, a chemical that has been determined by the agencies listed above to cause cancer and other chemicals known to cause cancer, birth defects and other reproductive harm. Inhalation of dust above established or recommended exposure levels should be avoided by use of proper ventilation and/or use of NIOSH approved respirator.

## Section VII - Precautions for Safe Handling and Use

VENTILATION: Provide adequate ventilation to maintain exposures below the OSHA PEL and ACGIH TLV for quartz and other substances

RESPIRATORY PROTECTION: None required under PEL. IF PEL is exceeded, use a NIOSH approved half or full-face respirator with high efficiency particulate filters.

PROTECTIVE GLOVES: Work gloves as needed

EYE PROTECTION: Recommend Safety goggles or safety glasses. Eye wash stations should be readily accessible.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT As Needed

Steps to be taken in case Material is Released or Spilled:

Clean up for use or disposal. Dampen with water mist to control dust (airborne dust) before removal. Do not use compressed air. If loaded on trucks, wet down material to prevent dusting during transport. Observe local, state, and federal regulations pertinent to reporting requirements.

Waste Disposal Method:

Dispose of in landfill or coal ash disposal pond. Observe local, state and federal regulations. This material is not RCRA hazardous waste.

Precautions to Be Taken in Handling and Storing:

Store in dry conditions. Minimize dust. Avoid creating dust.

## Section VIII - First Aid and Medical

Skin: Wash with soap and water. If an allergic reaction causes a rash that does not heal within a few days, consult a physician

Eyes: Flush with running water. Obtain medical assistance if irritation continues.

Ingestion: Do not induce vomiting. See a physician

Inhalation: Remove from exposure to airborne particulates

Medical Conditions Aggravated by Exposure:

Excessive dust exposure may aggravate any existing respiratory disorders or diseases. Possible complications or allergies resulting in irritation to skin, eyes, and respiratory tract may occur from excessive exposure to dusts.

## Section IX - Other Regulations

RCRA:

This material is not a RCRA hazardous waste.

EPCRA Section 311/312:

Material as shipped is subject to Section 311/312 reporting.

EPCRA Section 313:

Material as shipped is not subject to Section 313, Toxic Chemical Release Inventory reporting requirements

DOT:

Material as shipped is not a hazardous material as per DOT regulations

**California Proposition 65:** Crystalline silica (airborne particles of respirable size) is known by the State of California to cause cancer.

Placard Required:

None

Labeling Requirement:

None

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The information and recommendations set forth herein are based on data we have in our possession and we have reason to believe is accurate. It is, however, the user's responsibility to determine the safety, toxicity, and suitability for his own use of the herein described product. Because the actual by others is beyond our control, Boral Material Technologies Inc. makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use thereof.

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