

# 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 F Fly Ash

**Emergency Telephone Number:**  
1 (800) 424-9300 (CHEMTREC)

## SECTION I – Identity Information

**Chemical Name:**  
Fly Ash

**Telephone Number for Information:**  
(210) 349-4069

**Chemical Family:**  
Coal Ash

**Date Prepared:** 15-Feb-93

**CAS #:** 68131-74-8

**Date Revised:** 21-September-07

## SECTION II – Product Composition & Information on Ingredients

Ingredients	CAS#	% Weight	Exposure Limits	
			OSHA PEL mg/m <sup>3</sup>	ACGIH TLV mg/m <sup>3</sup>
Calcium Aluminate Silicates	Various	>80%	15	10
Crystalline Silica	14808-60-7	Varies	[10/(%SiO <sub>2</sub> +2)] (R) [30/(%SiO <sub>2</sub> +2)] (T)	0.05
Iron Compounds	Various	Varies	Not Available	Not Available

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

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

**Appearance and Odor**  
Grayish powder, odorless

## SECTION IV – Fire and Explosion Hazard Data

<b>Flash Point</b> Not Applicable	<b>LEL</b> Not Applicable	<b>UEL</b> 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

Materials as shipped are 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

**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

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 V II – Precautions for Safe Handling**

**VENTILATION:** Provide adequate ventilation to maintain exposures below the OSHA PEL and ACGIH TLV for crystalline silica and other substances.

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

**UN/NA Code:**

None

**Placard Required:**

None

**Labeling Requirement:**

None

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/her own use of the herein described product. Because the actions 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.