



# MATERIAL SAFETY DATA SHEET

for  
Class F Fly Ash from  
Bituminous Coal

This document has been prepared to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.  
Revision Date: June 2010

## SECTION I GENERAL INFORMATION

The SEFA Group  
217 Cedar Road  
Lexington, SC 29073

Emergency Information (803) 520-9000  
General Information (803) 520-9000

## SECTION II PRODUCT COMPOSITION AND MAJOR CONSTITUENTS

Components	Formula/CAS	Typical Percentage	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TVL (mg/m <sup>3</sup> )
Silica, Amorphous	SiO <sub>2</sub> 7631-86-9	41.0 - 58.0%	6	10
Silica, Crystalline	SiO <sub>2</sub> + 2 14808-60-7	3.0 - 7.0%	.1	.1
Aluminum Oxide	Al <sub>2</sub> O <sub>3</sub> 1344-28-1	18.1 - 28.6%	15	10
Iron Oxide	Fe <sub>2</sub> O <sub>3</sub> 1309-37-1	3.9 - 26.0%	10	5
Calcium Oxide	CaO 1305-78-8	0.8 - 6.0%	5	2
Magnesium Oxide	MgO 1309-48-4	0.7 - 1.4%	10	10
Titanium Oxide	TiO <sub>2</sub> 13463-67-7	1.0 - 1.9%	10	10

## SECTION III PHYSICAL & CHEMICAL CHARACTERISTICS

<b>Appearance &amp; Odor</b>	Fine gray dust with no apparent odor	<b>Evaporation Rate</b>	N/A
<b>Boiling Point</b>	N/A	<b>Melting Point</b>	>2500° F
<b>Vapor Pressure</b>	N/A	<b>Solubility in Water</b>	Insoluble
<b>Vapor Density</b>	N/A		
<b>Specific Gravity</b>	2.0 - 3.0		

## SECTION IV FIRE & EXPLOSION DATA

<b>Flash Point</b>	Non-flammable & non-explosive
<b>Extinguishing Method</b>	N/A
<b>Unusual Fire &amp; Explosion Hazards</b>	N/A

## SECTION V REACTIVITY DATA

<b>Stability</b>	Stable	<b>Hazardous Decomposition or By-Products</b>	None
<b>Incompatibility</b>	None	<b>Conditions to Avoid</b>	None

## MSDS for Class F Fly Ash from Bituminous Coal

### SECTION VI HEALTH HAZARDS

<b>Exposure Routes</b>	Inhalation, Skin Contact, Eye Contact
<b>Acute Health Hazards</b>	Possible irritation of eyes, skin & respiratory system.
<b>Chronic Health Hazards</b>	Prolonged or repeated exposure to excessive levels of crystalline silica may cause silicosis, a fibrosis of the lungs.
<b>Signs &amp; Symptoms of Exposure</b>	Irritation of eyes, skin & mucous membranes of the respiratory system.
<b>Note</b>	Respirable crystalline silica has been classified by the International Agency for Research on Center (IARC) as a probable human carcinogen.
<b><u>Emergency &amp; First Aid Procedures</u></b>	
<b>Skin</b>	Brush away ash particles. Flush effected area, preferably using soap & water.
<b>Eyes</b>	Do not rub. Flush effected area with water for at least 15 minutes.
<b>Ingestion</b>	Rinse mouth with water. Seek medical attention if necessary.
<b>Inhalation</b>	Remove person to fresh air. Clear nasal passages. If effected person is not breathing, contact emergency medical services and begin standard life support techniques.

### SECTION VII PRECAUTIONS FOR SAFE HANDLING & USE

<b>In Case of Spill</b>	Wet ash with water mist to help reduce airborne concentrations before removal. Remove spilled material with shovel or vacuum, or wash down with water. Do not use compressed air. Fly ash is not considered a hazardous waste under EPA's Resource Conservation and Recovery Act (RCRA). Coal fly ash may be disposed of by adding the material to cement mixtures, asphalt additives and as agricultural soil modifiers.
<b>Waste Disposal</b>	Cover material to prevent airborne dust and dispose of in a landfill according to federal, state and local regulations for non-hazardous waste.
<b>Storage &amp; Handling Precautions</b>	Avoid conditions which result in dusting and in uncontrolled runoff of rainwater from storage areas. Avoid inhalation of dust.

### SECTION VIII CONTROL MEASURES

<b>Respiratory Protection</b>	NIOSH-approved respirator if exposures approach TLV/PEL.
<b>Protective Gloves</b>	Work or chemical gloves should be used to reduce skin irritation of dust when workers must directly handle the material.
<b>Eye Protection</b>	Goggles or safety glasses should be worn. Eye station should be readily accessible.
<b>Other Protective Equipment</b>	Protective clothing should be worn as necessary for individuals with sensitive skin to prevent direct skin contact.
<b>Work/Hygienic Practices</b>	Wash hands and face after handling fly ash and before smoking or consuming food or beverages, apply cosmetics or using toilet facilities. Local exhaust systems should be employed in confined spaces.

### SECTION IX SPECIAL PRECAUTIONS

<b>Handling &amp; Storage</b>	Store in a dry place.
<b>Other</b>	Avoid creating dust. Practice good hand-washing techniques, washing prior to eating and drinking.