



# Material Safety Data Sheet

## I. Product Information

Trade Name and Synonyms **Fly Ash**

Information Phone: 713/723-7270

Emergency Phone: (800) 255-3924

Chemical Family: Coal Ash

CAS No. 681 31-74-8

Date Prepared: Revised June 1998

## II. Hazardous Ingredients

Component	Formula	OSHA PEL	ACGIH TLV	Typical%
Silica : Amorphous	SiO <sub>2</sub>	80 mg/m <sup>3</sup> /%SiO <sub>2</sub>	10 mg/m <sup>3</sup>	16.6-65.6
Silica : Crystalline (Respirable)	SiO <sub>2</sub>	10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2)	0.10 mg/m <sup>3</sup> (%SiO <sub>2</sub> +2)	2.6-4.6
Alumina (Respirable)	Al <sub>2</sub> O <sub>3</sub>	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (total)	10-35
Calcium Oxide	CaO	5 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	0.5-32
Titanium Oxide (Respirable)	TiO <sub>2</sub>	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	0.33-2
Ferric Oxide	Fe <sub>2</sub> O <sub>3</sub>	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	5-24
Magnesium Oxide	MgO	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	0.5-8

1. Fly ash composition is variable depending on coal source and power plant characteristics

2. Fly ash has a respirable particle size distribution

3. Materials present at less than 12% and greater than 0.5%, and not listed in OSHA of ACGIH include Potassium Oxide, Sodium Oxide, Sulfur Trioxide and Carbon.

## III. Physical Data

Boiling Point, °F	N/A	8-10 (slightly alkaline)
Solution in water	N/A	Specific Gravity (H <sub>2</sub> O = 1) N/A
Appearance and Odor	Tan or grayish white powder; odorless	

## IV. Fire and Explosion Hazard Data

Flash point (test method): N/A Flammable limits in air, percent by volume: Lower: N/A Upper: N/A

Extinguishing media: N/A Unusual and explosion hazards: none

Special fire fighting requirements: Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

## V. Health Hazard Data

Effects of Overexposure: *Acute*—Irritation of eyes, skin and mucous membranes.  
*Chronic*—Fibrotic diseases of the lungs and potential carcinogenity.

Emergency First Aid Procedures: *Skin*—Wash with mild soap and water. *Ingestion*—keep warm, at rest and drink large amounts of water, see physician. *Eyes*—Thoroughly flush with water, see physician. *Inhalation*—Move to fresh air, consult a physician.

Medical Conditions Aggravated By Exposure: Persons with the history of respiratory illness and reduced pulmonary function should avoid work places with high dust levels. Persons with skin disorders may experience aggravation of the condition.

## VI. Reactivity Data

Stability Stable: yes Conditions to avoid: none known Unstable: N/A

Incompatibility none known (materials to avoid)

Hazardous Decomposition Products none known

Hazardous Polymerization May Occur: N/A Conditions to avoid: none known Will Not Occur: yes

## VII. Spill or Leak Procedures

Steps To be Taken If Material Is Released Or Spilled: Clean up material for use or disposal. Dampen with water mist to control dust (airborne dust) before removal. Do not use compressed air. If loaded on trucks or spilled, moderately wet down to prevent dusting during transport.

Waste Disposal Method: Dispose of in an approved land fill. Observe local, state, and federal regulations.

Fly Ash is not a RCRA listed hazardous waste. It is not federally regulated.

## VIII. Special Protection Information

Respiratory Method (specify type): Single use, replaceable or removable filters for dust MSHA/NIOSH Approval #TC-21C-XXX

Ventilation Local exhaust : when possible use dust collector Special : none Mechanical (general) : for indoor work places Other: none

Protective Gloves: Normal work gloves Eye Protection: Safety goggles in dusty operations

Other Protective Equipment Recommended: Coveralls in high concentration conditions.

## IX. Special Precautions

Handling & Storage: Store in dry conditions

Other Precautions: Avoid creating dust and practice good hygiene; wash hands and face prior to eating and drinking.