

MATERIAL SAFETY DATA SHEET (MSDS)

1. PRODUCT IDENTIFICATION AND COMPANY DETAILS

Product Name: Cementation – Fly Ash
Product Identifier: Coal Fly Ash, Bottom Ash, Pulverized Fuel Ash.
Product Use: Industrial Use, Structural Fill, Cement Replacement, Asphalt Products, Concrete & Concrete Products.
H S Code: 26-21-90-00
Company Details: CEMENTATION INDIA PVT. LTD.
Address: 02 / 2ND Floor, TIME SQUARE - II, Ward 7B
 Gandhidham (Kutch) – 370201,
 Gujarat – INDIA.
Telephone: +91-7567961589 / 9925891754

2. COMPOSITION / INFORMATION ON INGREDIENTS

| Name | CAS No. | Percent (%) | Classification (GHS-US) |
|---------------|-------------|-------------|---|
| Fly Ash | 681 31 74 8 | <100 | n/a |
| Silica | 14808-60-7 | 0 – 0.5 | Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372 |
| Calcium Oxide | 1305-78-8 | 1 – 8 | Skin Corr. 1C H314 Eye Dam. 1, H318 STOT SE 3, H335 |

3. HAZARDS IDENTIFICATION

Eyes: May cause slight irritation, watering and redness.
Skin: May cause minor irritation.
Ingestion: May result in abdominal discomfort.
Inhalation: Irritating to nose, throat, causing coughing and sneezing.
Chronic Effects: Prolonged or repeated inhalation of dust containing Inhalation of high concentrations of Fly Ash may result in inflammation of the small airways of the lung and asthma-like symptoms or bronchitis.

4. FIRST AID MEASURES

Eyes: Flush eyes with plenty of water.
Skin: Wash skin immediately with soap and water.
Ingestion: Seek medical attention.
Inhalation: Move person to fresh air. Obtain medical if symptoms persist.

5. FIRE FIGHTING MEASURES

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| Extinguishing Media: | Product is not flammable. Use normal fire fighting equipment and practices. |
| Fire Fighter Protection: | Firefighters should wear full bunker gear; including positive pressure self-contained breathing apparatus. |
| Special Hazard: | Not considered flammable. |

6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions: | Refers to section 8. |
| Environmental Precautions: | Prevent entry to sewers and public waters. |
| Vacuum: | Use high efficiency air vacuum or wet sweep. |

7. HANDLING AND STORAGE

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| Handling Precautions: | Avoid generating dust during handling in the dry state. When handled pneumatically, use proper dust filters in vehicles and silos. |
| Storage Conditions: | Store in dry place. Protect from moisture. |

8. PERSONAL PROTECTION / EXPOSURE CONTROL

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| Eye/Face Protection: | Safety glasses with side and brow protection should be worn at all time during handling Fly Ash: goggles preferred. |
| Skin Protection: | Wear chemically resistant protective gloves. Wear suitable protective Clothing. Boot covers should be worn. |
| Respiratory Protection: | Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure limits. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Property: Value | Property: Value |
|---|---|
| Appearance (physical state, color, etc.): Light to dark grey or light brown | Upper/lower flammability or explosive limits: Not applicable |
| Odor: Odorless | Vapor Pressure (Pa): Not applicable |
| Odor threshold: Not applicable | Vapor Density: Not applicable |
| pH (25 °C): 9 - 12 | Specific gravity or relative density: 2.3-2.7 |
| Melting point/freezing point (°C): Not applicable | Water Solubility: Not soluble. |
| Initial boiling point and boiling range (°C): Not applicable | Partition coefficient: n-octane/water: Not determined |
| Flash point (°C): Not determined | Auto ignition temperature (°C): Not applicable |
| Evaporation rate: Not applicable | Decomposition temperature (°C): Not determined |
| Flammability (solid, gas): Not combustible | Viscosity: Not applicable |

10. STABILITY AND REACTIVITY

Stability: The product is considered to be stable.
Conditions to avoid: Avoid spreading dust and from moisture.
Hazardous Decomposition Products: None.

11. TOXICOLOGICAL INFORMATION

Eyes: Due to the reaction with moisture in the eye irritation of the Conjunctiva occurs if dust remains in contact with the eye.
Skin: Dry PFA will have little effect on the skin. However, when moist it is alkaline and prolonged or repeated contact can cause abrasion and irritant dermatitis.
Ingestion: There are no known adverse effects following ingestion.
Inhalation: There is no clinical evidence of a significant risk of harm to the respiratory tract or lungs.

12. ECOLOGICAL INFORMATION

Toxicity: No information available.
Persistence and Degradability: No information available.
Bio-accumulative Potential: No information available.
Mobility in Soil: No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Refer Sections 7 and 8 above for safe handling and use, including appropriate hygienic practices. Dispose of all waste product and containers in accordance with all local, regional, national and international regulations.

14. TRANSPORT INFORMATION

DOT: Not regulated for transport
IMDG: Not regulated for transport
IATA: Not regulated for transport

15. REGULATORY INFORMATION

OSHA/MSHA Hazard Communication: This product is considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program.

CERCLA/SUPERFUND: This product is not listed as a CERCLA hazardous substance.

EPCRA: This product has been reviewed according to the EPA **SARA Title III:** Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered a hazardous chemical and a delayed health hazard.

EPRCA: This product contains none of the substances subject **SARA Section 313:** to the reporting requirements of Section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

RCRA:

If discarded in its purchased form, this product would not be a hazardous waste either by listing or characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA:

Ash and crystalline silica are exempt from reporting under the inventory update rule.

16. OTHER INFORMATION

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CEMENTATION INDIA PVT. LTD.

Add: 02 / 2ND Floor, TIME SQUARE - II, Ward 7B, Opp. Sindhu Buag,
Gandhidham (Kutch) 370201, Gujarat - **INDIA.**

Email: info@cementationindia.com | www.cementationindia.com