

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixtures

**Product Name:** China Fly Ash

**Synonyms:** Fly Ash, Coal Ash, Top Ash, Class F Fly Ash, Pozzolan.

### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** Fly Ash is a pozzolan cement replacement that enhances the performance of concrete by increasing compressive strength, improving workability, durability, long term strength, resistance to freeze-thaw damage and reduces permeability, efflorescence shrinkage, thermal cracking, alkali silica reaction and sulfate attack in concrete. Basically, using fly ash makes better concrete that is more durable and better for the environment.

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Company

Hawaiian Cement

99-1300 Halawa Valley St.

Aiea, HI 96701

T: Cement Division General Manager 808-882-7513

### 1.4. Emergency Telephone Number

**Emergency Number** : CHEMTEL 24 HR, 7 DAYS, 365 DAYS A YEAR. 800-255-3924

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### GHS-US Classification

Eye Dam. 1 H318

Carc. 2 H351

Full text of hazard classes and H-statements : see section 16

### 2.2. Label Elements

#### GHS-US Labeling

##### Hazard Pictograms (GHS-US)



##### Signal Word (GHS-US)

: Danger

##### Hazard Statements (GHS-US)

: H318 - Causes serious eye damage.  
H351 - Suspected of causing cancer.

##### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves, protective clothing, respiratory protection, eye protection.  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.  
P308+310+313 - If exposed or concerned: Get medical advice/attention. Immediately call a poison center or doctor.

### 2.3. Other Hazards

May be corrosive to respiratory tract. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

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### 3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Ashes, residues	(CAS-No.) 68131-74-8	< 100	Eye Irrit. 2B, H320
Silica, amorphous	(CAS-No.) 7631-86-9	20 - 65	Not classified
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	(CAS-No.) 1344-28-1	10 - 45	Not classified
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	(CAS-No.) 1309-37-1	3 - 10	Comb. Dust
Gypsum (Ca(SO <sub>4</sub> ).2H <sub>2</sub> O)	(CAS-No.) 13397-24-5	0.01 - 10	Not classified
Carbon	(CAS-No.) 7440-44-0	0.01 - 5	Comb. Dust
Anhydrite	(CAS-No.) 14798-04-0	0.01 - 5	Not classified
Calcium hydroxide	(CAS-No.) 1305-62-0	0.01 - 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Calcium oxide	(CAS-No.) 1305-78-8	1 - 2	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402
Magnesium oxide (MgO)	(CAS-No.) 1309-48-4	0.01 - 2	Not classified
Titanium dioxide	(CAS-No.) 13463-67-7	0.01 - 2	Carc. 2, H351
Quartz	(CAS-No.) 14808-60-7	0.01 - 0.025	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372

Full text of H-phrases: see section 16

\*Trace amounts of various elements including antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, phosphorus, potassium, selenium, sodium, uranium, vanadium and other trace metals (<0.1%) may be detected in fly ash as a result of their presence in the source coal.

\*\* NOTE: CARBON CONTENT IS 1.5-3% - NOT CONSIDERED FLAMMABLE/COMBUSTIBLE AT THIS LEVEL.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists. Give oxygen or artificial respiration if necessary.

**First-aid Measures After Skin Contact:** Fly ash may cause drying or mechanical abrasion of the skin upon repeated contact. Wash with cool water and pH neutral soap or a mild skin detergent for 15 mins as a precaution. If the ash becomes wet and there is prolonged unprotected exposure, the Ash will become corrosive and cause burning of the skin. If irritation persists, or turns into a rash or dermatitis call a physician.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**Symptoms/Injuries:** Causes serious eye damage. Suspected of causing cancer.

**Symptoms/Injuries After Inhalation:** Dust may be harmful or cause irritation. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease. Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Suspected of causing cancer. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

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## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** None known.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Metal oxides. sulfur oxides. Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C, it can change to a form of crystalline silica known as trypdimite, and if crystalline silica (quartz) is heated to more than 1470°C, it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as trypdimite and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not breathe dust. Do not get in eyes, on skin, or on clothing.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not get in eyes, on skin, or on clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from extremely high temperatures and incompatible materials.

**Incompatible Products:** Strong acids. Fluorine. Strong oxidizing agent.

**Storage Temperature:** -32 - 100 °C (25.6 - 212 °F)

### 7.3. Specific End Use(s)

Fly Ash is a pozzolan cement replacement that enhances the performance of concrete by increasing compressive strength, improving workability, durability, long term strength, resistance to freeze-thaw damage and reduces permeability, efflorescence shrinkage, thermal cracking, alkali silica reaction and sulfate attack in concrete. Basically, using fly ash makes better concrete that is more durable and better for the environment.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

<b>Silica, amorphous (7631-86-9)</b>		
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	20 mppcf (80mg/m <sup>3</sup> /%SiO <sub>2</sub> )
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (dust and fume)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	2500 mg/m <sup>3</sup> (dust and fume)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (fume) 15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>Calcium oxide (1305-78-8)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>Gypsum (Ca(SO<sub>4</sub>).2H<sub>2</sub>O) (13397-24-5)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particulate matter)
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>Quartz (14808-60-7)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	A2 - Suspected Human Carcinogen
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (respirable dust)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup> (respirable dust)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 µg/m <sup>3</sup>
<b>Magnesium oxide (MgO) (1309-48-4)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particulate matter)
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	750 mg/m <sup>3</sup> (fume)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (fume, total particulate)
<b>Titanium dioxide (13463-67-7)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust)
<b>Calcium hydroxide (1305-62-0)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)

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## 8.2. Exposure Controls

### Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

### Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear NIOSH approved respiratory protection.



### Materials for Protective Clothing

#### Hand Protection

: Wear clothing impervious to water to prevent skin contact.  
: Wear gloves impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves.

#### Eye Protection

: Wear ANSI approved glasses or safety goggles when handling dust or wet Fly Ash to prevent contact with eyes. Wearing contact lens when handling Fly Ash under dusty conditions is not recommended.

#### Skin and Body Protection

: Wear suitable protective clothing.

#### Respiratory Protection

: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear NIOSH approved respiratory protection.

#### Other Information

: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Tan, brown, gray or black powder
Odor	: No distinct odor
Odor Threshold	: No data available
pH	: 10 - 13
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Specific Gravity	: 1.9 - 2.9
Solubility	: Water: < 5 %
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

### 9.2. Other Information

No additional information available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Extremely high temperatures. Incompatible materials.
- 10.5. Incompatible Materials:** Strong acids. Fluorine. Strong oxidizers.
- 10.6. Hazardous Decomposition Products:** None expected under normal conditions of use.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

**Acute Toxicity:** Not classified

<b>Ashes, residues (68131-74-8)</b>	
LD50 Oral Rat	> 2000 mg/kg
<b>Silica, amorphous (7631-86-9)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>	
LD50 Oral Rat	> 15900 mg/kg
LC50 Inhalation Rat	> 2.3 mg/l/4h
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
LD50 Oral Rat	> 10000 mg/kg
<b>Calcium oxide (1305-78-8)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2500 mg/kg
<b>Quartz (14808-60-7)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
<b>Titanium dioxide (13463-67-7)</b>	
LD50 Oral Rat	> 10000 mg/kg
<b>Carbon (7440-44-0)</b>	
LD50 Oral Rat	> 10000 mg/kg
<b>Calcium hydroxide (1305-62-0)</b>	
LD50 Oral Rat	7340 mg/kg

**Skin Corrosion/Irritation:** Not classified.

**pH:** 10 - 13

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**pH:** 10 - 13

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Suspected of causing cancer.

<b>Silica, amorphous (7631-86-9)</b>	
IARC group	3
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
IARC group	3
<b>Quartz (14808-60-7)</b>	
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
<b>Titanium dioxide (13463-67-7)</b>	
IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Dust may be harmful or cause irritation. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease. Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

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**Chronic Symptoms:** Suspected of causing cancer. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General** : Not classified.

<b>Silica, amorphous (7631-86-9)</b>	
LC50 Fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>	
LC50 Fish 1	> 100 mg/l
EC50 Daphnia 1	> 100 mg/l
ErC50 (Algae)	> 100 mg/l
NOEC (Acute)	> 50 mg/l
<b>Calcium oxide (1305-78-8)</b>	
LC50 Fish 1	50.6 mg/l

### 12.2. Persistence and Degradability

<b>China Fly Ash</b>	
Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

<b>China Fly Ash</b>	
Bioaccumulative Potential	Not established.
<b>Silica, amorphous (7631-86-9)</b>	
BCF Fish 1	(no bioaccumulation expected)
<b>Calcium oxide (1305-78-8)</b>	
BCF Fish 1	(no bioaccumulation)
<b>Calcium hydroxide (1305-62-0)</b>	
BCF Fish 1	(no bioaccumulation)

**12.4. Mobility in Soil** No additional information available

### 12.5. Other Adverse Effects

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.

**Ecology - Waste Materials:** Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

<b>China Fly Ash</b>	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
<b>Ashes, residues (68131-74-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Silica, amorphous (7631-86-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>	

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Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
<b>SARA Section 313 - Emission Reporting</b>	1 % (fibrous forms)
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Calcium oxide (1305-78-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Titanium dioxide (13463-67-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Carbon (7440-44-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Calcium hydroxide (1305-62-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

### 15.2. US State Regulations

<b>Titanium dioxide (13463-67-7)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>Silica, amorphous (7631-86-9)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Calcium oxide (1305-78-8)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Gypsum (Ca(SO<sub>4</sub>).2H<sub>2</sub>O) (13397-24-5)</b>	
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Quartz (14808-60-7)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Titanium dioxide (13463-67-7)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	



# China Fly Ash

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Calcium hydroxide (1305-62-0)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 04/27/2017

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

### GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 1A	Carcinogenicity Category 1A
Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H318	Causes serious eye damage
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom)