



# Safety Data Sheet

According to the Regulation EC No. 1907/2006

## FLY ASH

Date Prepared : Nov. 21.2011  
Revision : 2Revision Date : 11 Jan. 2017  
SDS No. : GBF - 2275

### 1- IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

#### 1.1- Product Identifier

Product Name : Fly Ash  
CAS No : 68131-74-8  
EC No : 268-627-4

#### 1.2- Relevant identified uses of the substance advised against:

Fly ash is used as additive to cement or pozzolanic for cement and concrete.

#### 1.3- Details of the supplier of the substance or mixture

Company : EREN ENERJİ ELEKTRİK ÜRETİM A.Ş.  
Kuzuyaka Mah. Bakacak Sok. No:1 Çatalağzı / ZONGULDAK  
Address : Dilovası Organize Sanayi Bölgesi 1. Kısım Göksu Caddesi No: 16  
Dilovası/Kocaeli/TURKEY  
Tel : +90 372 264 31 99 / +90 372 264 31 96  
E-mail : nurseli.oguzhan@erenholding.com.tr

#### 1.4- Emergency telephone numbers:

+90 372 264 31 99

### 2- HAZARDS IDENTIFICATION

#### 2.1- Classification of the substance:

##### Classification according to EC 1272/2008:

Not a hazardous substance according to Regulation (EC) No 1272/2008.

#### 2.2- Label elements (according to EC 1272/2008):

The product does not need to be labelled in accordance with EC directives or respective national laws.

#### 2.3- Other hazards:

PBT/vPvB: Not relevant.

No special remarkable hazards.

### 3- COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2- Mixture

Component	CAS No.	EC No	Contents, %	Classification-CLP
Silica - SiO <sub>2</sub>	231-545-4	7631-86-9	45,82	Not Classified



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Component	CAS No.	EC No	Contents, %	Classification-CLP
Aluminium oxide - Al <sub>2</sub> O <sub>3</sub>	1344-28-1	215-691-6	19,85	Not Classified
Iron oxide - Fe <sub>2</sub> O <sub>3</sub>	1309-37-1	215-168-2	6,17	Not Classified
Dipotassium oxide, K <sub>2</sub> O	12136-45-7	235-227-6	2,21	Not Classified
Magnesium oxide - MgO	1309-48-4	215-171-9	1,7	Not Classified
Calcium oxide - CaO	1305-78-8	215-138-9	1,66	Skin Irrit. 2 H315 Eye Damage. 1 H318 STOT Single Exp. 3 H335
Titanium oxide - TiO <sub>2</sub>	13463-67-7	236-675-5	0,88	Not Classified
Sulphur trioxide - SO <sub>3</sub>	7446-11-9	231-197-3	0,76	Skin Damage. 1A H314 STOT Single Exp. 3 H335

Additional information: All the H sentences are given in section 16 on the subject.

### 4- FIRST AID MEASURES

#### 4.1- Description of first aid measures

**Inhalation:**

Remove from exposure to fresh air. Keep warm and at rest. Get medical attention if irritation persists. If the person has breathing difficulties, seek medical attention. If not breathing give artificial respiration.

**Eye contact:**

Check for and remove any contact lenses. Rinse out with water for at least 15 minutes with the eyelid held wide open. Get medical attention if irritation persists.

**Skin contact:**

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water and soap. Get medical attention if irritation persists.

**Ingestion:**

Rinse out mouth and make victim drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by medical personnel; call for medical help.

#### 4.2- Most important symptoms and effects, both acute and delayed

Eye and skin itching, irritation, redness and respiratory irritation and coughing.

#### 4.3- Indication of any immediate medical attention and special treatment needed

No data available.

### 5- FIRE FIGHTING MEASURES

#### 5.1- General

Not flammable.



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### 5.2- Suitable Extinguishing Media

Water, alcohol resistant foam, CO<sub>2</sub>, dry chemical powder.

### 5.3- Special hazards arising from the substance or mixture

Not available.

### 5.4- Advice for fire-fighters

Direct fire to the surrounding firefighting operations. Do not need any special measures for firefighters.

## 6- ACCIDENTAL RELEASE MEASURES

### 6.1- Personal precautions, protective equipment and emergency procedures

Evacuate the accident area. Avoid breathing dusts and contact with skin and eyes. Wear appropriate personal protective equipment as described in Section 8. Follow the advice for safe handling and use given in Section 7.

### 6.2- Environmental precautions

Ash is not a hazardous waste. Special precautions for the environment is not necessary.

### 6.3- Methods and materials for containment and cleaning up

Moisten environment before cleaning to control the powder with water fog. Do not use compressed air. If the truck is loaded or if spilled, wet environment to avoid dusting during transport.

### 6.4- Reference to other sections

Review safety handling information in Section 7, personal protection measures in Section 8 and disposal measures in Section 13.

## 7- HANDLING AND STORAGE

### 7.1- Precautions for safe handling

- avoid creating airborne dust wherever possible
- do not eat, drink and smoke in working areas
- wear appropriate protective clothing (e.g. goggles, gloves)
- avoid prolonged skin contact
- wash hands after work.

### 7.2- Condition for safe storage, including any incompatibilities

It is recommended to store them in plastic sacks, concrete or steel structured silos. Store in dry and well-ventilated areas and away from food items.

### 7.3- Specific end use(s)

No further relevant information available.



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### 8- EXPOSURE CONTROLS, PERSONAL PROTECTION

#### 8.1- Control parameters

##### Occupational exposure limits

General dust exposure limits; 10 mg/m<sup>3</sup> (respirable dust) - 5 mg/m<sup>3</sup> (inhalable dust)

##### Derived effect levels

No data available for product.

##### Predicted effect concentrations

No data available for product.

#### 8.2- Exposure controls

##### Engineering Controls

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of dust.

##### Personal protective equipment

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.



##### Respiratory Protection:

Use FFP2 type dust mask with EN 143 standard.

##### Eye/Face Protection:

Wear safety glasses with EN 166 standard.

##### Hand Protection:

Wear butyl or nitrile rubber protective gloves with EN 374 standard.

##### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

##### Hygiene measures

Remove contaminated clothing and wash thoroughly with soap and water after work. Wash hands after use.

##### Environmental exposure controls

No data available



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### 9- PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1- Information on basic physical and chemical properties

Physical State	: Solid, powder
Color	: Gray, Gray-brown
Odor	: Odorless
pH (20 °C)	: 7 - 11
Boiling Point (°C)	: > 1300
Flash Point (°C)	: Not applicable.
Explosive Properties	: Not explosive.
Resolution	: Not applicable.

#### 9.2- Other information

No additional information available

### 10-STABILITY AND REACTIVITY

#### 10.1- Reactivity

The product is not reactive under recommended storage and handling conditions.

#### 10.2- Chemical stability

The product is stable under recommended storage and handling conditions.

#### 10.3- Possibility of hazardous reactions

Material is not harmful and is not expected to endanger any reactivity.

#### 10.4- Conditions to avoid

Not available

#### 10.5- Incompatible materials

Strong oxidizing agents, strong acids. Fluorine, boron trifluoride, manganese trifluoride and oxygen difluoride.

#### 10.6- Hazardous decomposition products

No data available

### 11-TOXICOLOGICAL INFORMATION

#### 11.1- Information on toxicological effects

##### Acute toxicity

Oral, inhalation, dermal no acute toxicity

##### Corrosion/Irritation

Skin, eye not irritating, may cause sensitivity.



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<b>Serious eye damage/irritation</b>	not corrosive
<b>Sensitization</b>	not sensitizing
<b>Specific target organ toxicity</b>	no repeated toxicity
<b>Mutagenicity</b>	not mutagen
<b>Carcinogenicity</b>	no carcinogenetic effects are known
<b>Reproductive toxicity</b>	no reproduction toxicity

### 12-ECOLOGICAL INFORMATION

#### 12.1- Toxicity

The substance is not classified as hazardous.

No aquatic toxicity.

No toxicity for sewage treatment plant microorganisms.

#### 12.2- Persistence and degradability

Biodegradation is not expected.

Abiotic degradation (e.g. oxidation, hydrolysis, photolysis) is not expected.

#### 12.3- Bioaccumulative potential

No indication to bioaccumulation potential (inorganic substance).

#### 12.4- Mobility in soil

Moderately mobile in soil.

#### 12.5- Results of PBT and vPvB assessment :

This substance does not meet the criteria for classification as PBT or vPvB.

#### 12.6- Other adverse effects

No other adverse effects on the environment are known.

### 13-DISPOSAL CONSIDERATIONS

#### 13.1- Waste treatment methods

##### Disposal Management:

Product hazardous waste must be disposed of in accordance with official regulations.

#### 13.2- European waste catalogue (EWC)

Waste Code: 10 01 02: Ash - fly

### 14-TRANSPORT INFORMATION

#### 14.1- General information

The product is not regulated under UN ADR/RID, ADNR, IMDG and IATA lists.



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<b>14.2- UN number</b>	Not relevant.
<b>14.3- UN proper shipping name</b>	Not relevant.
<b>14.4- Transport hazard class(es)</b>	Not relevant.
<b>14.5- Packing group</b>	Not relevant.
<b>14.6- Environmental hazards</b>	Not relevant.
<b>14.7- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not relevant.

### 15-REGULATORY INFORMATION

#### 15.1- Safety, health and environmental regulations specific for the substance or mixture

- Regulation (EC) No 1907/2006, (REACH),
- Commission Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006,
- Council Directive 67/548/EEC, (DSD),
- Regulation (EC) No 1272/2008 (CLP),
- Commission Directive 2006/15/EC,
- Commission Directive 2000/39/EC
- Council Directive 91/689/EEC,
- ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

#### 15.2- Chemical safety assessment

Not applicable.

### 16-OTHER INFORMATION

#### 16.1- Safety Data Sheet Preparer

Eren Enerji Elektrik Üretim A.Ş.

Gultekin Baskoylu (License No: TSE GBF-1813)

Information provider: Nurseli Oğuzhan - Eren Enerji Elektrik Üretim A.Ş.

Date Prepared: November 11th, 2011

Revised: January 11<sup>th</sup>, 2017

#### 16.2- Relevant H sentences and R phrases (number and full text):

- H314** Causes severe skin burns and eye damage  
**H315** Causes skin irritation.  
**H318** Causes serious eye damage.  
**H335** May cause respiratory irritation.  
**H411** Toxic to aquatic life with long lasting effects.



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### 16.3- Additional Information:

In need of medical advice you can call 114, medical support number of National Poison Center of Turkey (UZEM).

The key sources used to prepare this safety data sheet is as below;

- ECHA and related EU directives, IUCLID (International Uniform Chemical Information Database)
- The MSDS of the ingredient
- UN ADR, IMDG, IATA lists,

### 16.4- Abbreviations and acronyms

ADR	European Agreement Concerning the Int. Carriage of Dangerous Goods by Road
CAS No	Chemical Abstract Service Index Number
CLP	Regulation of Classification, Labelling and Packaging of Chemicals
EC No	European Commission Number
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
PBT	Persistent Bioaccumulative Toxic
RID	International Rule for Transport of Dangerous Substances by Railway
vPvB	Very Persistent, Very Bioaccumulative

### 16.5- Further Information:

The information contained within this Material Safety Data Sheet is believed to be accurate and have been compiled from sources believed to be reliable. It is offered for consideration, investigation and verification. It is the user's responsibility to follow the guidelines as outlined within this MSDS. The user assumes all risk of use, storage and handling in compliance with applicable laws and regulations. Eren Enerji Elektrik Üretim A.Ş. makes no warrant of any kind, express or implied, concerning the accuracy or completeness of the information and data within this MSDS. Eren Enerji Elektrik Üretim A.Ş. will not be liable for claims relating to any parties use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are accurate, inaccurate incomplete or otherwise misleading. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

The user should always follow the most current MSDS available.