

SAFETY DATA SHEET

DATE: 03/09/2015

FLY ASH



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FLYASH

RECOMMENDED USE: Cement mineral additive, Land Fill, Road Base, Filler, Lightweight Filler and Extender in Building Products

MANUFACTURER: CAROLINA STALITE COMPANY

ADDRESS: 205 KLUMAC ROAD
P.O. BOX 1037
SALISBURY, NC 28144

PHONE: (704) 637-1515

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Acute Toxicity Oral - Category 4
Acute Toxicity Inhalation - Category 4
Skin Corrosion/Irritation - Category 2
Eye Damage - Category 2A
Carcinogenicity - Category 1A
Specific Target Organ Toxicity Repeat Exposure - Category 1
Hazardous to the Aquatic Environment Chronic - Category 4

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

Harmful if swallowed or inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.
Causes damage to organs (respiratory system) through prolonged or repeated exposure.
May cause long lasting harmful effects to aquatic life.

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Precautionary Statements

Prevention

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product
Do not breathe dust.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.

Response

If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage

Store in an appropriate container or containment structure.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component	Percent
68131-74-8	Ashes, residues	
1344-28-1	Aluminosilicate	50-70
7631-86-9	Crystalline Silica	5-10
1305-78-8	Calcium Oxide	20-30
1309-37-1	Iron Mineral Dusts	4-7

Notes:

- (1) Values approximate. Material is derived from naturally occurring coal. May contain unburned carbon from coal, which may be considered a nuisance dust (see note 2).
(2) Not listed specifically by substance name. Exposure to aluminosilicate dust may be covered by inert or nuisance dust limits of 15 mg/m³ for total dust and 5 mg/m³ for respirable portion.
(3) Iron minerals may include magnesium, hematite, and other iron oxides.

General Product Information

Trace amounts of various elements including arsenic, antimony, carbon, lead, nickel, manganese, chromium, boron, mercury, selenium, beryllium, cadmium and uranium may be detected in flyash as a result of their presence in the source.

SECTION 4: FIRST AID MEASURES

First Aid: Eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, including under the lids. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

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First Aid: Skin

If irritation occurs, flush skin with plenty of water. In some cases - e.g., large amounts of flyash still present on the skin – before wetting the product / skin, it may be advisable or appropriate to gently brush - AVOID the generation of dust – the bulk of the flyash from the skin. Call physician if irritation persists.

First Aid: Ingestion

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If conscious and capable of swallowing, rinse mouth thoroughly with water and then drink plenty of water to dilute the material in the stomach. Get medical attention immediately.

First Aid: Inhalation

Remove to fresh air. Seek medical help if coughing and other symptoms do not subside.

SECTION 5: FIRE-FIGHTING MEASURES

General Fire Hazards

Not flammable.

Hazardous Combustion Products

None.

Extinguishing Media

Use water, or use extinguishing media suitable for the surrounding materials.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

Recovery and Neutralization

None.

Methods for Clean-Up

Contain the spill or leak. Avoid generating dust. Collect spilled material, preferably in dry state.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions

This material is a water pollutant: prevent material from entering drains, sewers, ditches or waterways.

Prevention of Secondary Hazards

None.

SECTION 7: HANDLING AND STORAGE

Regulatory Requirements

Approved handler and tracking not required. Emergency response plans required where quantities greater than one ton are present.

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Handling Procedures

Avoid contact with skin and eyes. Wear the appropriate eye protection against dust. Minimize dust generation and accumulation. Avoid breathing dust. Wear the appropriate respiratory protection against dust in poorly ventilated areas and if TLV is exceeded. Use good safety and industrial hygiene practices.

Storage Procedures

Store in dust-tight, labeled containers. Keep containers closed when not in use. Store in ventilated area away from sources of heat, and incompatible materials.

Incompatibilities

Moisture (reaction may generate heat). Strong acids, Boric oxide, Boron Trifluoride, Phosphorus, Chlorates, Chlorine Trifluoride, Chlorine, Ammonium salts and Fluorine.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component Exposure Limits

Crystalline Silica (7631-86-9)

NIOSH: 6 mg/m³ TWA

Aluminosilicate (1344-28-1)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Iron Mineral Dusts (1309-37-1)

ACGIH: 5mg/m³ TWA (respirable fraction)

OSHA: 10 mg/m³ TWA (fume)

NIOSH: 5 mg/m³ TWA (dust and fume, as Fe)

Calcium Oxide (1305-78-8)

ACGIH: 2 mg/m³ TWA

OSHA: 5 mg/m³ TWA

NIOSH: 2 mg/m³ TWA

Engineering Measures

Use local exhaust or general dilution ventilation to control exposure within applicable limits.

Personal Protective Equipment: Respiratory

Avoid actions that cause dust exposure to occur. Use local or general ventilation to control exposures below applicable exposure limits. NIOSH or MSHA approved particulate filter respirators should be used in the context of respiratory protection program meeting the requirements of the OSHA respiratory protection standard [29 CFR 1910.134] to control exposures when ventilation or other controls are inadequate or discomfort or irritation is experienced. Respirator and/or filter cartridge selection should be based on American National Standards Institute (ANSI) Standards Z88.2 Practices for Respiratory Protection.

Personal Protective Equipment: Hands

Where prolonged exposure to products might occur, wear impervious gloves to eliminate skin contact.

Personal Protective Equipment: Eyes

When engaged in activities where ingredients could contact the eye, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with ingredients.

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Personal Protective Equipment: Skin and Body

Normal work clothing (long sleeved shirts and long pants) is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Opaque fine powder	Odor:	None
Physical State:	Solid/Fine Powder	pH:	>11.5 (in water)
Vapor Pressure:	Not Applicable	Vapor Density:	Not Applicable
Boiling Point:	Not Applicable	Melting Point:	Not Applicable
Solubility (H2O):	Mostly insoluble	Specific Gravity:	2.8-3.4
Evaporation Rate:	Not Applicable	VOC:	Not Determined
Octanol/H2O Coeff.:	Not Determined	Flash Point:	Not Determined
Flash Point Method:	Not Determined	Upper Flammability Limit (UFL):	Not Determined
Lower Flammability Limit (LFL):	Not Determined	Burning Rate:	Not Determined
Auto Ignition:	Not Determined		

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

The flyash, itself - particularly if moist or wet - or solutions that are or have been in contact with flyash may be corrosive to metals.

Incompatible Products

Moisture (reaction may generate heat). Strong acids, Boric oxide, Boron Trifluoride, Phosphorus pentoxide, Chlorates, Chlorine Trifluoride, Chlorine, Ammonium salts and Fluorine.

Hazardous Decomposition Products

Reacts with water to form calcium hydroxide. Calcium hydroxide and water solution can be irritating and corrosive to skin.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Analysis - LD50/LC50

Silica, amorphous (7631-86-9)

Oral LD50 Rat >5000 mg/kg; Inhalation LC50 Rat >2.2 mg/L 1 h; Dermal LD50 Rabbit >2000 mg/kg

Aluminum oxide (1344-28-1)

Oral LD50 Rat >5000 mg/kg

Iron oxide (Fe2O3) (1309-37-1)

Oral LD50 Rat >10000 mg/kg

Calcium oxide (1305-78-8)

Oral LD50 Rat 500 mg/kg

Ashes, residues (68131-74-8)

Oral LD50 Rat >2000 mg/kg

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Potential Health Effects: Skin Corrosion Property/Stimulativeness

May cause skin irritation. May cause burns in the presence of moisture.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

May cause chemical burns. Causes irritation (possibly severe).

Potential Health Effects: Ingestion

May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burning of mouth, throat and esophagus.

Potential Health Effects: Inhalation

Exposure to dust generated during the handling or use of the product may irritate eyes, skin, nose, throat and upper respiratory tract.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any sensitization effects.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

May cause cancer. Prolonged or repeated exposure to airborne free crystalline silica can result in lung disease and/or lung cancer.

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any single exposure specific target organ toxicity effects.

Specified Target Organ General Toxicity: Repeated Exposure

Causes damage to organs (respiratory system) through prolonged or repeated exposure.

Aspiration Respiratory Organs Hazard

This product is not reported to have any aspiration hazard effects.

Other Toxicological Information

Repeated exposure to calcium oxide has shown to cause ulceration of the nasal septum, bronchitis and pneumonia. Chronic inhalation of silica quartz may cause autoimmune disease. Chronic exposure to an ingredient in this mixture has been reported to cause renal injury and adverse effects on visual acuity.

SECTION 12: ECOLOGICAL INFORMATION

General Product Information

The product is classified as being ecotoxic. When mixed with water, e.g. as slurry, the product is highly alkaline and would have a biocidal effect.

Aquatic

Volatilisation to the atmosphere and bioconcentration in fish and other aquatic organism are not expected to occur. If released into the atmosphere, the particulates would be deposited by rainfall or drop out from the atmosphere.

Soil

Not classified for soil ecotoxicity

Terrestrial Vertebrates and Invertebrates

Not classified as toxic to terrestrial vertebrates and invertebrates

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

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Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: TRANSPORT INFORMATION

Relevant Requirements

Not regulated for transport purpose.

SECTION 15: REGULATORY INFORMATION

Regulatory Information

US Federal Regulations

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Aluminum oxide (1344-28-1) SARA 1.0 % de minimis
313: concentration (fibrous forms)

SECTION 16: OTHER INFORMATION

Hazardous Material Information System (HMIS):	Health	1
	Flammability	0
	Physical Hazard	0
	Personal Protection	B

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration.

Other Information

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