SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: STALITE

RECOMMENDED USE: Construction, Structural, Masonry, Concrete, Ready Mix, Precast, Prestress Horticulture, Asphalt, Lightweight Fill Geotechnical, Aquaponics, and Stormwater Research

MANUFACTURER: CAROLINA STALITE COMPANY
ADDRESS: 205 KLUMAC ROAD
          P.O. BOX 1037
          SALISBURY, NC 28144

PHONE: (704) 637-1515

SECTION 2: HAZARDS IDENTIFICATION

Main Risks:
Dust may irritate the eyes, skin and respiratory tract. Avoid breathing excessive dust. Breathing silica-containing dust for prolonged periods in the workplace can cause lung damage and a lung disease called silicosis. Several scientific organizations have classified crystalline silica as causing lung cancer in humans. Silicosis or lung cancer can result in permanent injury or death.

Inhalation:
Dusts may irritate the nose, throat and respiratory tract by mechanical abrasion. Coughing, sneezing and shortness of breath may occur.

Skin Contact:
Dust particles can scratch and irritate the skin with redness, an itching or burning feeling, swelling of the skin, and/or rash.

Contact with Eyes:
Dust particles can scratch the eye causing tearing, redness, a stinging or burning feeling, or swelling of the eyes with blurred vision.

Ingestion:
Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation including nausea, vomiting diarrhea blockage.

GHS LABEL ELEMENTS
Symbol(s)
Signal Word
Warning

Hazard Statements
Harmful if swallowed or inhaled.
Causes skin irritation.
Causes serious eye irritation.
Causes damage to organs (respiratory system) through prolonged or repeated exposure.

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.

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.
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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

General Product Information
The product is composed of 100% slate, expanded at high temperature. The expanded slate is primarily amorphous type. However, quartz (crystalline silica) may be present in excess of 1%. When exposure to this products and other chemicals is concurrent, the TLVs must be defined at the work place. Exposure limits vary with the percentage of quartz in dust. All limits are 8-hr. TWA exposures.

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz, Crystalline 14808-60-7</td>
<td>10 mg/m3 / % SiO2 + 2</td>
<td>Respirable Dust</td>
</tr>
<tr>
<td>Quartz, Crystalline 14808-60-7</td>
<td>30 mg/m3 / % SiO2 + 2</td>
<td>Total Dust</td>
</tr>
<tr>
<td>Quartz, Crystalline 14808-60-7</td>
<td>30 mg/m3 / % SiO2 + 3</td>
<td>Total Dust</td>
</tr>
<tr>
<td>Silica Amorphous 60676-86-0</td>
<td>10 mg/m3 / % SiO2 + 2</td>
<td>Respirable Dust</td>
</tr>
</tbody>
</table>

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 if irritation persist.

First Aid: Skin
If irritation occurs, wash and flush skin with soap and water. Call physician if irritation persists.

First Aid: Ingestion
If swallowed, do not induce vomiting unless directed to do so by medical personnel. If conscious and capable of swallowing, rinse month 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. Dust in throat and nasal passages should clear spontaneously. 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Recovery and Neutralization
None.

Methods for Clean-Up
Contain the spill or leak. Spilled materials, where dust can be generated, may overexpose cleanup personnel to respirable dust. Wetting of spilled material and/or use of respiratory protective equipment may be necessary. Avoid generating dust. Collect spilled material.

Emergency Measures
Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment
Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions
None

Prevention of Secondary Hazards
None.

SECTION 7: HANDLING AND STORAGE

Regulatory Requirements
Approved handler and tracking not required.
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.

Incompatibilities
None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>OSHA/MSHA PEL</th>
<th>ACGIH TLV</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Amorphous</td>
<td>80 mg/m³ / % silica</td>
<td>10 mg/m³ (inhalable)</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Particulates not otherwise classified</td>
<td>15 mg/m³ (total dust)</td>
<td>10 mg/m³ (inhalable)</td>
<td>NE</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (respirable)</td>
<td>3 mg/m³ (respirable)</td>
<td></td>
</tr>
<tr>
<td>Respirable dust containing silica</td>
<td>10 mg/m³ / % SiO₂ + 2</td>
<td>Use respirable silica REL</td>
<td></td>
</tr>
<tr>
<td>Total dust containing silica</td>
<td>30 mg/m³ / %SiO₂ + 2 OSHA</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td></td>
<td>30 mg/m³ / %SiO₂ + 3 MSHA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz, Crystalline (respirable)</td>
<td>NE – use respirable dust PEL</td>
<td>0.025 mg/m³</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td>Crystalline Silica (respirable)</td>
<td>½ of OSHA and MSHA respirable dust PEL</td>
<td>0.025 mg/m³</td>
<td>0.05 mg/m³</td>
</tr>
</tbody>
</table>

Legend:
NE = Not Established; PEL = Permissible Exposure Limit; TLV = Threshold Limit Value; REL = Recommended Exposure Limit; OSHA = Occupational Safety and Health Administration; MSHA = Mine Safety and Health Administration; NIOSH = National Institute for Occupational Safety and Health; ACGIH = American Conference of Governmental Industrial Hygienists

Engineering Measures
Use local exhaust, general dilution ventilation, and/or wet suppression 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.

**Personal Protective Equipment: Skin and Body**
Normal work clothing (long sleeved shirts and long pants) is recommended.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Grey Aggregate</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid/Gravel to Sand</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>Non-soluble</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Octanol/H2O Coeff.</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.47 – 1.75</td>
</tr>
<tr>
<td>VOC</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable</td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Auto Ignition</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

**SECTION 10: STABILITY AND REACTIVITY**

**Stability**
Stable under normal conditions.

**Hazardous Reaction Potential**
None Known

**Conditions to Avoid**
Contact with incompatible materials should be avoided (see below).

**Incompatible Products**
Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride may cause fire and/or explosions. Silica dissolves readily in hydrofluoric acid producing a corrosive gas-silicon tetrafluoride.

**Hazardous Decomposition Products**
Silica-containing respirable dust particles may be generated. When heated, quartz is slowly transformed into tridymite (above 860°C/1580°F) and cristobalite (above 1470°C/2678°F). Both tridymite and cristobalite are other forms of crystalline silica and are considered more fibrogenic to the lungs than quartz.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Health Hazards**
Effects described in this section are believed not to occur if exposures are maintained at or below appropriate TLVs. Because of a wide variation to individual susceptibility, TLVs may not be applicable to all persons and those with medical conditions listed below.

**Acute Hazards**
Primary route(s) of exposure: Inhalation. Exposure to dust may irritate respiratory system, eyes, and skin.

**Chronic Hazards**
Chronic exposure to respirable dust in excess of appropriate TLVs has caused pneumoconiosis (dusty lung). Chronic exposure to respirable quartz-containing dust in excess of appropriate TLVs has caused silicosis, a progressive pneumoconiosis.

**Symptoms of Silicosis** Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis is progressive, and symptoms can appear at any time, even years
after exposure have ceased. Symptoms of silicosis may include (but are not limited to): shortness of breath, difficulty breathing with or without exertion, coughing, diminished work capacity, diminished chest expansion, reduction of lung volume, right heart enlargement and/or failure. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

Signs and Symptoms of Exposure
Irritation of eyes, nose, skin, throat and/or shortness of breath.

Potential Health Effects: Skin
May cause skin irritation.

Potential Health Effects: Eye Critical Damage/Stimulativeness
May cause irritation (possibly severe).

Potential Health Effects: Ingestion
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.

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.

SECTION 12: ECOLOGICAL INFORMATION

General Product Information
Not classified for ecotoxicity

Aquatic
Not classified as an aquatic ecotoxicity.

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.

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
Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act.

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list or all state regulations. Therefore, the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply.

US Federal Regulations
Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III:
Section 302 extremely hazardous substances:
None
Section 311/312 hazard categories:
Delayed Health
Section 313 reportable ingredients at or above de minimus concentrations:
None

SECTION 16: OTHER INFORMATION

Disclaimer
SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY CAROLINA STALITE COMPANY, except that the product shall conform to contracted specifications. The information provided herein was believed by Carolina Stalite Company to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for nondelivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.
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.
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

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

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.
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 greatered than one ton are present.
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.
Personal Protective Equipment: Skin and Body
Normal work clothing (long sleeved shirts and long pants) is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Opaque fine powder</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid/Fine Powder</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>Mostly insoluble</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Octanol/H2O Coeff.</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>&gt;11.5 (in water)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.8-3.4</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.8-3.4</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Octanol/H2O Coeff.</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Upper Flammability Limit (UFL)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Lower Flammability Limit (LFL)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Burning Rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Auto Ignition</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

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
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.
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 313: 1.0 % de minimis concentration (fibrous forms)

SECTION 16: OTHER INFORMATION

Hazardous Material Information System (HMIS):

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<tr>
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<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
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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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