

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name • FGD Fly Ash, Class F (From Lignite Coal)

Synonyms • Fly Ash

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Supplementary cementitious material for concrete and concrete products. Also used in soil and road stabilization, sludge solidification and as fine filler in asphalt and other products

Details of the supplier of the safety data sheet

Manufacturer • Basin Electric Power Cooperative
Antelope Valley Station
294 County Road 15 Beulah, ND 58523
United States
www.basinelectric.com

Telephone (General) • (701) 873-4545

Emergency telephone number

Manufacturer • (701) 873-4545

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Skin Corrosion 1A
Serious Eye Damage 1
Carcinogenicity 1A
Specific Target Organ Toxicity Repeated Exposure 2

Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Causes severe skin burns and eye damage.
 - Causes serious eye damage
 - May cause cancer.
 - May cause damage to organs - Lungs through prolonged or repeated exposure via Inhalation

Precautionary statements

- Prevention**
- Do not handle until all safety precautions have been read and understood.
 - Do not breathe dust.
 - Wash thoroughly after handling.
 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - Wash contaminated clothing before reuse.
 - Specific treatment, see supplemental first aid information.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - Immediately call a POISON CENTER or doctor/physician.
 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 - IF exposed or concerned: Get medical advice/attention.
 - Get medical advice/attention if you feel unwell.

- Storage/Disposal**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

| Composition | | | | | |
|-------------------|----------------|----------------|-----------|---|----------|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive | Comments |
| Silica, amorphous | CAS:7631-86-9 | 25% TO 45% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Calcium oxide | CAS:1305-78-8 | 18% TO 30% | NDA | OSHA HCS 2012: Skin Corr. 1C; Eye Dam. 1 | NDA |
| Sulfate(2-) | CAS:14808-79-8 | 3.5% TO 22% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Sulfur trioxide | CAS:7446-11-9 | 15% TO 17% | NDA | OSHA HCS 2012: Skin Corr. 1A; Eye Dam. 1 | NDA |
| Aluminum oxide | CAS:1344-28-1 | 7% TO 11% | NDA | OSHA HCS 2012: STOT RE 2 (Lungs, Inhl) | NDA |

| | | | | | |
|---------------------------------|----------------|----------------|--------------------------------------|--|-----|
| Magnesium oxide | CAS:1309-48-4 | 4% TO 5% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Iron oxide | CAS:1309-37-1 | 4% TO 5% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Sodium oxide | CAS:1313-59-3 | 2% TO 4.5% | NDA | OSHA HCS 2012: Skin Corr. 1B; Eye Dam. 1 | NDA |
| Other lime inerts | NDA | 1% TO 2% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Potassium oxide | CAS:12136-45-7 | 0.5% TO 1% | NDA | OSHA HCS 2012: Skin Corr. 1B; Eye Dam. 1 | NDA |
| Barium oxide | CAS:1304-28-5 | 0.5% TO 1% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Silica, crystalline - tridymite | CAS:15468-32-3 | < 1% | NDA | OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs) | NDA |
| Titanium dioxide | CAS:13463-67-7 | 0.3% TO 0.8% | NDA | OSHA HCS 2012: Muta. 2; Carc. 2; STOT RE 2 (Lungs) | NDA |
| Strontium oxide | CAS:1314-11-0 | 0.3% TO 0.8% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Cristobalite | CAS:14464-46-1 | < 0.5% | NDA | OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs) | NDA |
| Quartz | CAS:14808-60-7 | 0.43% | NDA | OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs, Inhl) | NDA |
| Phosphorus Oxide (P2O3) | CAS:1314-24-5 | 0.05% TO 0.12% | NDA | OSHA HCS 2012: Not Classified | NDA |
| Manganese dioxide | CAS:1313-13-9 | 0.05% TO 0.12% | Ingestion/Oral-Rat LD50 • 3478 mg/kg | OSHA HCS 2012: STOT RE 1 (CNS, Inhl); Ox. Sol. 3 | NDA |

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If signs/symptoms continue, get medical attention.

Skin

- In case of contact, immediately flush with plenty of water for at least 15 minutes. Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention immediately.

Ingestion

- Do NOT induce vomiting. Dilute by drinking milk or water. Never give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media ● In case of fire use media as appropriate for surrounding materials.

Unsuitable Extinguishing Media ● No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards ● Material is non-combustible and is not expected to pose a fire or explosion hazard.

Hazardous Combustion Products ● No data available

Advice for firefighters

- Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions ● Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures ● Keep unauthorized personnel away. Ventilate closed spaces before entering.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

Containment/Clean-up Measures ● Stop leak if you can do it without risk. Avoid generating dust. Spills may be cleaned up by sweeping or by using an industrial vacuum cleaner, vacuum truck, or front-end loader. Spilled material may be dampened with a water mist to control airborne dust before removal.

Section 7 - Handling and Storage

Precautions for safe handling

Handling ● Avoid eye contact and prolonged contact with skin. Avoid prolonged or repeated inhalation of ash particulates in air. Avoid accidental release. Avoid creating dust. When handling fly ash, use local mechanical ventilation or extraction in areas where dust could escape into the work environment. For bulk deliveries, closed pumping systems are recommended. When handled pneumatically use standard dust filters on vehicles and silos. Work areas should be cleaned regularly. If generating dust cannot be avoided, follow personal protective equipment recommendations.

Conditions for safe storage, including any incompatibilities

Storage ● Store dry and away from water. Keep container/package tightly closed and in a well-ventilated place.

Section 8 - Exposure Controls/Personal Protection

Control parameters

| Exposure Limits/Guidelines | | | |
|----------------------------|----------|-----------------|--|
| | Result | ACGIH | NIOSH |
| | Ceilings | Not established | Not established |
| | | | 5 mg/m3 Ceiling (as Mn) <i>as Manganese compounds</i> |

| | | | | |
|--|-------|---|---|---|
| Manganese dioxide as Manganese compounds | STELs | Not established | 3 mg/m3 STEL (as Mn) <i>as Manganese compounds</i> | Not established |
| | TWAs | Not established | 1 mg/m3 TWA (as Mn) <i>as Manganese compounds</i> | Not established |
| Titanium dioxide (13463-67-7) | TWAs | 10 mg/m3 TWA | Not established | 15 mg/m3 TWA (total dust) |
| Quartz (14808-60-7) | TWAs | 0.025 mg/m3 TWA (respirable fraction) | 0.05 mg/m3 TWA (respirable dust) | Not established |
| Cristobalite (14464-46-1) | TWAs | 0.025 mg/m3 TWA (respirable fraction) | 0.05 mg/m3 TWA (respirable dust) | Not established |
| Silica, crystalline - tridymite (15468-32-3) | TWAs | Not established | 0.05 mg/m3 TWA (respirable dust) | Not established |
| Iron oxide (1309-37-1) | TWAs | 5 mg/m3 TWA (respirable fraction) | 5 mg/m3 TWA (dust and fume, as Fe) | 10 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust, listed under Rouge); 5 mg/m3 TWA (respirable fraction, listed under Rouge) |
| Magnesium oxide (1309-48-4) | TWAs | 10 mg/m3 TWA (inhalable fraction) | Not established | 15 mg/m3 TWA (fume, total particulate) |
| Aluminum oxide (1344-28-1) | TWAs | 1 mg/m3 TWA (respirable fraction) <i>as Aluminum insoluble compounds</i> | Not established | 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) |
| Calcium oxide (1305-78-8) | TWAs | 2 mg/m3 TWA | 2 mg/m3 TWA | 5 mg/m3 TWA |
| Silica, amorphous (7631-86-9) | TWAs | Not established | 6 mg/m3 TWA | Not established |

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- None required if engineering and handling controls are adequate to keep exposure below the PEL. If PEL is exceeded, use approved respiratory protection that is fitted correctly. May need to consider air supplied respirators if concentration is heavy.

Eye/Face

- As a minimum, safety glasses should be worn when concentrated airborne bottom ash dust is present. May need to consider wearing goggles if dust concentration is heavy. Eye wash stations should be readily accessible. Contact lenses should not be worn when in proximity of this product.

Skin/Body

- Wear impervious gloves to prevent contact and for protection from abrasion. Tyvek or similar disposable coverall as needed. Showering and clean clothes are indicated after exposure.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|--------------------|------------------------|---------------------------------------|
| Physical Form | Solid | Appearance/Description | Fine gray or tan powder with no odor. |
| Color | Gray or tan. | Odor | Odorless |
| Odor Threshold | No data available | | |
| General Properties | | | |
| Boiling Point | > 1000 C(> 1832 F) | Melting Point | > 1000 C(> 1832 F) |
| Decomposition Temperature | No data available | pH | 10 to 12 |
| Specific Gravity/Relative Density | = 2 | Water Solubility | No data available |
| Viscosity | No data available | Explosive Properties | No data available |
| Oxidizing Properties: | No data available | | |
| Volatility | | | |
| Vapor Pressure | No data available | Vapor Density | No data available |
| Evaporation Rate | No data available | | |
| Flammability | | | |
| Flash Point | Not relevant | UEL | Not relevant |
| LEL | Not relevant | Autoignition | No data available |
| Flammability (solid, gas) | No data available | | |
| Environmental | | | |
| Octanol/Water Partition coefficient | No data available | | |

Section 10: Stability and Reactivity

Reactivity

- Product is stable but must be kept dry.

Chemical stability

- Reacts with water to form calcium silicate and aluminate hydrates, gypsum and calcium hydroxide.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Water, must be kept dry.

Incompatible materials

- Water

Hazardous decomposition products

- None

Section 11 - Toxicological Information

Information on toxicological effects

| Components | |
|------------|--|
| | Acute Toxicity: Inhalation-Rat LCLo • 2190 mg/m ³ 4 Hour(s); <i>Lungs, Thorax, or Respiration:</i> Dyspnea ; Inhalation-Rat |

| | | |
|------------------------------------|------------|---|
| Silica, amorphous (25% TO 45%) | 7631-86-9 | <p>LCLo • >200 g/m³ 1 Hour(s); <i>Lungs, Thorax, or Respiration</i>:Fibrosis, focal (pneumoconiosis);</p> <p>Irritation: Eye-Rabbit • 25 mg 24 Hour(s) • Mild irritation;</p> <p>Multi-dose Toxicity: Inhalation-Rat TLo • 30 mg/m³ 6 Hour(s) 6 Week(s)-Intermittent; <i>Sense Organs and Special Senses</i>:Eye:Lacrimation; <i>Lungs, Thorax, or Respiration</i>:Pulmonary emboli; <i>Gastrointestinal</i>:Changes in structure or function of salivary glands</p> |
| Quartz (0.43%) | 14808-60-7 | <p>Acute Toxicity: Inhalation-Human TLo • 16 mppcf 8 Hour(s) 17.9 Year(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Fibrosis, focal (pneumoconiosis); <i>Lungs, Thorax, or Respiration</i>:Cough; <i>Lungs, Thorax, or Respiration</i>:Dyspnea; Inhalation-Rat TLo • 200 mg/kg; <i>Lungs, Thorax, or Respiration</i>:Fibrosis, focal (pneumoconiosis); <i>Lungs, Thorax, or Respiration</i>:Other changes; <i>Nutritional and Gross Metabolic</i>:Changes in Chemistry or Temperature:Fe;</p> <p>Multi-dose Toxicity: Inhalation-Hamster TLo • 3 mg/m³ 6 Hour(s) 78 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Fibrosis (interstitial); <i>Lungs, Thorax, or Respiration</i>:Changes in lung weight; Inhalation-Rat TLo • 6.2 mg/m³ 6 Hour(s) 6 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Other changes; <i>Blood</i>:Changes in spleen; <i>Immunological Including Allergic</i>:Increase in cellular immune response; Inhalation-Rat TLo • 80 mg/m³ 26 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Fibrosis, focal (pneumoconiosis); <i>Blood</i>:Changes in spleen; <i>Immunological Including Allergic</i>:Decrease in cellular immune response;</p> <p>Mutagen: Micronucleus test • Unreported Route-Hamster • Lung (Somatic cell) • 160 µg/cm³; Micronucleus test • Unreported Route-Human • Lung (Somatic cell) • 40 µg/cm³; DNA damage • Unreported Route-Rat • Lung (Somatic cell) • 500 mg/plate 4 Hour(s);</p> <p>Tumorigen / Carcinogen: Inhalation-Rat TLo • 50 mg/m³ 6 Hour(s) 71 Week(s)-Intermittent; <i>Tumorigenic</i>:Carcinogenic by RTECS criteria; <i>Liver</i>:Tumors</p> |
| Sulfur trioxide (15% TO 17%) | 7446-11-9 | <p>Acute Toxicity: Inhalation-Guinea Pig LCLo • 30 mg/m³ 6 Hour(s); <i>Liver</i>:Hepatitis (hepatocellular necrosis), diffuse; <i>Lungs, Thorax, or Respiration</i>:Structural or functional change in trachea or bronchi; <i>Endocrine</i>:Other changes</p> |
| Aluminum oxide (7% TO 11%) | 1344-28-1 | <p>Multi-dose Toxicity: Inhalation-Rabbit TLo • 200 mg/m³ 5 Hour(s) 28 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Structural or functional change in trachea or bronchi; <i>Lungs, Thorax, or Respiration</i>:Chronic pulmonary edema; <i>Related to Chronic Data</i>:Death in the Other Multiple Dose data type field; Inhalation-Rat TLo • 200 mg/m³ 5 Hour(s) 28 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Structural or functional change in trachea or bronchi; <i>Lungs, Thorax, or Respiration</i>:Chronic pulmonary edema; <i>Related to Chronic Data</i>:Death in the Other Multiple Dose data type field;</p> <p>Tumorigen / Carcinogen: Implant-Rat • 200 mg/kg; <i>Tumorigenic</i>:Equivocal tumorigenic agent by RTECS criteria; <i>Tumorigenic</i>:Tumors at site of application; Implant-Rat TDLo • 200 mg/kg; <i>Tumorigenic</i>:Neoplastic by RTECS criteria; <i>Tumorigenic</i>:Tumors at site of application; Intrapleural-Rat TDLo • 90 mg/kg; <i>Tumorigenic</i>:Equivocal tumorigenic agent by RTECS criteria; <i>Lungs, Thorax, or Respiration</i>:Tumors</p> |
| Iron oxide (4% TO 5%) | 1309-37-1 | <p>Multi-dose Toxicity: Inhalation-Rat TLo • 500 µg/m³ 24 Hour(s) 61 Day(s)-Continuous; <i>Brain and Coverings</i>:Other degenerative changes; <i>Blood</i>:Changes in serum composition (e.g., TP, bilirubin cholesterol);</p> <p><i>Biochemical</i>:Enzyme inhibition, induction, or change in blood or tissue levels:True cholinesterase;</p> <p>Mutagen: DNA damage • Unreported Route-Human • Lung (Somatic cell) • 40 µg/disk 4 Hour(s);</p> <p>Tumorigen / Carcinogen: Subcutaneous-Rat TDLo • 135 mg/kg; <i>Tumorigenic</i>:Equivocal tumorigenic agent by RTECS criteria; <i>Tumorigenic</i>:Tumors at site of application</p> |
| Magnesium oxide (4% TO 5%) | 1309-48-4 | <p>Multi-dose Toxicity: Inhalation-Rat TLo • 1000 mg/m³ 4 Hour(s) 50 Day(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Other changes; <i>Blood</i>:Other hemolysis with or without anemia;</p> <p>Tumorigen / Carcinogen: Intratracheal-Hamster TDLo • 480 mg/kg 30 Week(s)-Intermittent; <i>Tumorigenic</i>:Equivocal tumorigenic agent by RTECS criteria; <i>Sense Organs and Special Senses</i>:Olfaction:Tumors; <i>Lungs, Thorax, or Respiration</i>:Tumors</p> |
| Titanium dioxide (0.3% TO 0.8%) | 13463-67-7 | <p>Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation;</p> <p>Multi-dose Toxicity: Inhalation-Rat TLo • 250 mg/m³ 6 Hour(s) 4 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Chronic pulmonary edema; <i>Lungs, Thorax, or Respiration</i>:Other changes; Inhalation-Rat TLo • 10 mg/m³ 6 Hour(s) 13 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Fibrosis (interstitial); <i>Lungs, Thorax, or Respiration</i>:Other changes; <i>Biochemical</i>:Metabolism (intermediary):Effect on inflammation or mediation of inflammation;</p> <p>Mutagen: Micronucleus test • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent; DNA damage • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent; Cytogenetic analysis • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent;</p> <p>Tumorigen / Carcinogen: Inhalation-Rat • 10 mg/m³ 18 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic</i>:Carcinogenic by RTECS criteria; <i>Lungs, Thorax, or Respiration</i>:Tumors</p> |
| Manganese dioxide (0.05% TO 0.12%) | 1313-13-9 | <p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 3478 mg/kg;</p> <p>Reproductive: Inhalation-Mouse TLo • 49 mg/m³ 7 Hour(s)(75D pre/1-18D preg); <i>Reproductive Effects</i>:Effects on Newborn:Growth statistics (e.g., reduced weight gain); <i>Reproductive Effects</i>:Effects on Newborn:Behavioral</p> |

| GHS Properties | Classification |
|-------------------------------|--|
| Acute toxicity | OSHA HCS 2012 • No data available |
| Aspiration Hazard | OSHA HCS 2012 • No data available |
| Carcinogenicity | OSHA HCS 2012 • Carcinogenicity 1A |
| Germ Cell Mutagenicity | OSHA HCS 2012 • No data available |
| Skin corrosion/Irritation | OSHA HCS 2012 • Skin Corrosion 1A |
| Skin sensitization | OSHA HCS 2012 • No data available |
| STOT-RE | OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2 |
| STOT-SE | OSHA HCS 2012 • No data available |
| Toxicity for Reproduction | OSHA HCS 2012 • No data available |
| Respiratory sensitization | OSHA HCS 2012 • No data available |
| Serious eye damage/Irritation | OSHA HCS 2012 • Serious Eye Damage 1 |

Target Organs

- Lungs

Route(s) of entry/exposure

- Inhalation, Skin, Ingestion

Medical Conditions**Aggravated by Exposure**

- Excessive dust exposure may aggravate existing respiratory disorders or diseases. Possible complications of allergies resulting in irritation to skin, eyes and respiratory passage may occur from excessive exposure to dusts. Individuals with sensitive skin and with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure.

Potential Health Effects**Inhalation****Acute (Immediate)**

- Particle inhalation may cause nasal dryness, irritation and obstruction, coughing, sneezing, sinusitis, frequent headaches and upper respiratory symptoms such as shortness of breath and reduced pulmonary function.

Chronic (Delayed)

- Chronic overexposure to dust containing respirable sized crystalline silica can cause delayed lung injury (silicosis).

Skin**Acute (Immediate)**

- Exposure may elicit allergic contact dermatitis in sensitized individuals. Exposure to skin when mixed with water or sweat can cause irritation, redness and caustic burns as severe as third degree.

Chronic (Delayed)

- No data available

Eye**Acute (Immediate)**

- Irritant. Ash particles can cause eye irritation, watering, redness and caustic burns.

Chronic (Delayed)

- No data available

Ingestion**Acute (Immediate)**

- Swallowed fly ash may cause abdominal discomfort.

Chronic (Delayed)

- No data available

Other**Acute (Immediate)**

- Product becomes alkaline when exposed to moisture. Exposure can dry the skin; cause alkali burns and affects the mucous membranes. Dust can irritate the eyes and upper respiratory system. Toxic effects noted in animals include, alveolar damage with pulmonary edema. Swallowed fly ash may cause abdominal discomfort.

Chronic (Delayed)

- Repeated overexposure to very high levels of respirable crystalline silica for periods as short as six months have caused acute silicosis. Repeated inhalation of fly ash dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung) and lung cancer. It may also increase the risk of scleroderma (a disease affecting the

connective tissue of the skin, joints, blood vessels and internal organs). Studies have shown that smoking increases the risk of bronchitis, silicosis and lung cancer in persons exposed to crystalline silica. It is recommended that all storage and work areas should be smoke free zones. Inhalation of high levels of fly ash dust may result in severe inflammation of the small airways of the lung and asthma-like symptoms. Dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of scleroderma, tuberculosis and kidney disorders.

Carcinogenic Effects

- Repeated and prolonged exposure may cause cancer.

| Carcinogenic Effects | | | |
|---------------------------------|------------|------------------------------|------------------------|
| | CAS | IARC | NTP |
| Titanium dioxide | 13463-67-7 | Group 2B-Possible Carcinogen | Not Listed |
| Quartz | 14808-60-7 | Group 1-Carcinogenic | Known Human Carcinogen |
| Cristobalite | 14464-46-1 | Group 1-Carcinogenic | Not Listed |
| Silica, crystalline - tridymite | 15468-32-3 | Group 1-Carcinogenic | Not Listed |
| Sulfur trioxide | 7446-11-9 | Group 1-Carcinogenic | Not Listed |

Other information

- Note: Described Effect Depends On Duration And Degree Of Exposure.

Key to abbreviations

LD = Lethal Dose
 TC = Toxic Concentration
 TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not compiled for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not compiled for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not compiled for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not compiled for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not compiled for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

| | UN number | UN proper shipping name | Transport hazard class(es) | Packing group | Environmental hazards |
|-----|-----------|-------------------------|----------------------------|---------------|-----------------------|
| DOT | NDA | Not Regulated | NDA | NDA | NDA |

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic

| Inventory | | |
|---------------------------------|------------|------|
| Component | CAS | TSCA |
| Aluminum oxide | 1344-28-1 | Yes |
| Barium oxide | 1304-28-5 | Yes |
| Calcium oxide | 1305-78-8 | Yes |
| Cristobalite | 14464-46-1 | Yes |
| Iron oxide | 1309-37-1 | Yes |
| Magnesium oxide | 1309-48-4 | Yes |
| Manganese dioxide | 1313-13-9 | Yes |
| Phosphorus Oxide (P2O3) | 1314-24-5 | No |
| Potassium oxide | 12136-45-7 | Yes |
| Quartz | 14808-60-7 | Yes |
| Silica, amorphous | 7631-86-9 | Yes |
| Silica, crystalline - tridymite | 15468-32-3 | No |
| Sodium oxide | 1313-59-3 | Yes |
| Strontium oxide | 1314-11-0 | Yes |
| Sulfate(2-) | 14808-79-8 | No |
| Sulfur trioxide | 7446-11-9 | Yes |
| Titanium dioxide | 13463-67-7 | Yes |
| Water | 7732-18-5 | Yes |

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- | | | |
|-------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |

| | | |
|-----------------------------------|------------|------------|
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | 1000 lb TQ |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |

| | | |
|---------------------------|------------|------------|
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

| | | |
|-----------------------------------|------------|-----------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | 100 lb EPCRA RQ |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |

| | | |
|---------------------------|------------|------------|
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

| | | |
|-----------------------------------|------------|--|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | 100 lb TPQ (This material is a reactive solid. The TPQ does not default to 10000 pounds for non-powder, non-molten, non-solution form) |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|-----------------------------------|------------|--|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | 1.0 % de minimis concentration (fibrous forms) |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

| | | |
|-----------------------------------|------------|--|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size) |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | carcinogen, initial date 10/1/88 (airborne particles of respirable size) |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - California - Proposition 65 - Developmental Toxicity

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |

| | | |
|---------------------------|------------|------------|
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

| | | |
|-----------------------------------|------------|------------|
| • Sodium oxide | 1313-59-3 | Not Listed |
| • Potassium oxide | 12136-45-7 | Not Listed |
| • Barium oxide | 1304-28-5 | Not Listed |
| • Sulfur trioxide | 7446-11-9 | Not Listed |
| • Silica, crystalline - tridymite | 15468-32-3 | Not Listed |
| • Strontium oxide | 1314-11-0 | Not Listed |
| • Calcium oxide | 1305-78-8 | Not Listed |
| • Iron oxide | 1309-37-1 | Not Listed |
| • Magnesium oxide | 1309-48-4 | Not Listed |
| • Titanium dioxide | 13463-67-7 | Not Listed |
| • Aluminum oxide | 1344-28-1 | Not Listed |
| • Manganese dioxide | 1313-13-9 | Not Listed |
| • Cristobalite | 14464-46-1 | Not Listed |
| • Silica, amorphous | 7631-86-9 | Not Listed |
| • Quartz | 14808-60-7 | Not Listed |
| • Water | 7732-18-5 | Not Listed |
| • Sulfate(2-) | 14808-79-8 | Not Listed |
| • Phosphorus Oxide (P2O3) | 1314-24-5 | Not Listed |

Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information**Last Revision Date**

- 23/April/2015

Preparation Date

- 23/April/2015

Disclaimer/Statement of Liability

- The information contained in this Safety Data Sheet (SDS) is believed to be correct since it was obtained from sources we believe are reliable. However, no representation, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications, hazards connected with the use of the material, or the results to be obtained from the use thereof. User assumes all risks and liability of any use, processing or handling of any material, variation in methods, conditions

and equipment used to store, handle, or process the material and hazards connected with the use of the material are solely the responsibility of the user and remain at his sole discretion. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user, and the user has the responsibility of provide a safe work place to examine all aspects of its operation and to determine if or where precautions, in addition to those described herein, are required.

Key to abbreviations

NDA = No Data Available
