

**Ingestion**

Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Never give anything by mouth to an unconscious person. If ingestion of a large amount does occur, call a poison control center immediately. Get medical attention if any discomfort occurs.

**Notes to physician**

Treat symptomatically.

**General advice**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**5. Fire Fighting Measures****Flammable properties**

High concentrations of dust may form explosive mixture with air.

**Extinguishing media****Suitable extinguishing media**

Foam. Carbon dioxide (CO<sub>2</sub>). Dry powder. Water fog.

**Unsuitable extinguishing media**

None known.

**Protection of firefighters****Specific hazards arising from the chemical**

During fire, gases hazardous to health may be formed. High concentrations of dust may form explosive mixture with air.

**Protective equipment and precautions for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

**Fire fighting****equipment/instructions**

Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**6. Accidental Release Measures****Personal precautions**

Ensure adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**Methods for containment**

Collect spillage. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product.

**Methods for cleaning up**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Collect dust using a vacuum cleaner equipped with HEPA filter. If not possible, moisten dust with water before it is collected with shovel, broom or the like. Avoid dust formation.

**Other information**

Clean up in accordance with all applicable regulations.

**7. Handling and Storage****Handling**

Provide adequate ventilation. Keep away from heat, sparks and open flame. Avoid inhalation of dust and contact with skin and eyes. Avoid breathing fumes if this product is used at high temperatures. Use only with adequate ventilation. Dust clouds may be explosive under certain conditions. Take precautionary measures against static discharges when there is a risk of dust explosion. To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system. Wear appropriate personal protective equipment. Change contaminated clothing. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

**Storage**

Keep container tightly closed and in a well-ventilated place. Keep away from heat, sparks and open flame.

**8. Exposure Controls / Personal Protection****Occupational exposure limits****Synthetic Barium Sulfate**

ACGIH: 5 mg/m<sup>3</sup> TWA (inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica)

**Powder Aluminum Oxide**

OSHA: 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

**Synthetic Graphite**

OSHA: 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

ACGIH: 2 mg/m<sup>3</sup> TWA (all forms except graphite fibers, respirable fraction)

OSHA: 15 mg/m<sup>3</sup> TWA (synthetic, total dust); 5 mg/m<sup>3</sup> TWA (synthetic, respirable fraction)

**Calcium Carbonate**

ACGIH: 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

**Calcium Hydroxide**

ACGIH: 5 mg/m<sup>3</sup> TWA

OSHA: 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

**Engineering controls**

Ventilate as needed to control airborne dust. Use explosion-proof ventilation equipment if airborne dust levels are high.

**Personal protective equipment****Eye / face protection**

Wear dust-resistant safety goggles where there is danger of eye contact.

**Skin protection**

Wear protective gloves. Rubber gloves are recommended. Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.

**Respiratory protection**

In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.