

## Symptoms and Effects of Exposure to Selected Individual Components (continued)

**ALUMINUM OXIDE (non fibrous)**

Inhalation hazard(s)- Exposure to alumina may cause coughing and shortness of breath.

Chronic: Prolonged exposure may affect breathing capacity.

Other hazard(s) – Ingestion is not recommended, but adverse affects have not been reported, Alumina is not absorbed through the skin, but contact may cause abrasion. Dust may irritate eyes.

**ALUMINIA SILICATE**

Inhalation hazard(s) – Exposure may cause eye, nose, throat, lung and skin irritation. Excessive exposure may cause emphysema and bronchitis

Other hazard(s) – Ingestion is not recommended, but adverse effects have not been reported. Not absorbed though skin, but may cause abrasion. Dust may irritate eyes

**AMORPHOUS SILICA**

Inhalation hazard(s) –

Other hazard(s) –

**ARAMID FIBERS ( >9 microns in diameter, considered non-respirable)**

Inhalation hazard(s) – Overexposure to respirable fibers by inhalation may cause mild temporary upper respiratory irritation, with discomfort or cough. Based on animal testing, prolonged and repeated exposure to excessive concentrations of respirable fibers may cause permanent lung injury.

Other hazard(s) – Skin sensitization has not been observed in human tests. The mechanical action of fibers may cause slight skin irritation at clothing points and mild irritation of the eyes and nasal passages.

**BARIUM SULFATE (BARYTES)**

Inhalation hazard(s) – Should be treated as a nuisance dust. Exposure to barium sulfate may cause paroxysmal coughing, wheezing, difficult breathing, and upper respiratory tract irritation.

Other hazard(s) –Adverse effects have not been reported from ingestion. Eye contact may cause temporary discomfort and irritation.

**BISMUTH SULFIDE**

Inhalation hazard(s) - Exposure to dust may cause coughing and upper respiratory tract irritation.

Other hazard(s) – Contact may cause skin and eye and irritation.

**BRASS, BRONZE, AND COPPER**

Inhalation hazard(s) – Acute: may produce irritation of the nose and/or trachea. May produce acute gastroenteric symptoms resulting in vomiting or inflammation and may cause metal fume fever.

Chronic: prolonged exposure may cause injury to liver, kidneys or spleen; anemia may develop.

Chronic toxicity is reportedly confined to those persons suffering from pre-existing Wilson's disease.

Other hazard(s) – Copper dusts and mists are eye and mucous membrane irritants may be skin sensitizers.

Acute exposure may cause metallic taste and nasal ulceration and perforation. Prolonged skin contact may produce sensitization dermatitis. Exposure may result in discoloration of the skin and hair. Ingestion of copper compounds may cause vomiting and collapse. Hemolysis, jaundice, anuria, hypertension and convulsions characterize acute poisoning.

**CALCIUM CARBONATE**

Inhalation hazard(s) – Limestone dust is considered a nuisance dust. Prolonged exposure may cause irritation to throat and lung. Silica content is not considered high enough to cause silicosis unless exposures are extremely high and prolonged.

Other hazard(s) – May cause mild transient eye irritation.