

**POTENTIAL HEALTH EFFECTS (continued)**  
**Symptoms and Effects of Exposure to Selected Individual Components**

**ACRYLIC FIBERS**

**Inhalation hazards** – Overexposure to respirable fibers by inhalation may cause mild and temporary upper respiratory irritation, with discomfort or cough. The toxicological properties of this material have not been fully investigated. The oral and dermal animal testing LD<sub>50</sub> values were greater than 5.0 g/kg and 2.0 g/kg, respectively.

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

**ALUMINUM OXIDE**

**Inhalation hazards** – Exposure to alumina may cause coughing and shortness of breath.

Chronic: Prolonged exposure may affect breathing capacity.

**Other hazards** – Ingestion is not recommended, but adverse effects have not been reported. Alumina is not absorbed through the skin, but contact may cause abrasion. Dust may irritate eyes.

**ANTIMONY COMPOUNDS**

**Inhalation hazards** – There are no reported serious health risks from exposure other than a possible change in blood pressure. Prolonged exposure may cause irritation of the nose, throat, and mouth.

**Other hazards** – Skin or eye contact may result in coughing, dizziness, headache, nausea, vomiting, diarrhea, stomach cramps, and insomnia.

**ARAMID FIBERS**

**Inhalation hazards** – 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 hazards** – 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**

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

**Other hazards** – Adverse effects have not been reported from ingestion. Eye contact may cause temporary discomfort and irritation.

**BRASS AND COPPER**

**Inhalation hazards** – 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 hazards** – Copper dusts and mists are eye and mucous membrane irritants and 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.