

POTENTIAL HEALTH EFFECTS

Inhalation: Dust may cause irritation.

Repeated inhalation of dust may affect a variety of organs (See Chronic Section below).

Skin: May cause irritation. Prolonged skin contact may cause skin sensitization and/or dermatitis.

Eye: Dust may cause irritation and redness. Particles may scratch the eye.

Ingestion: Ingestion may cause irritation, nausea, vomiting, and diarrhea.

Chronic: Repeated inhalation of dust may cause fibrotic lung disease and increased risk of sinus and respiratory cancer. Long-term dust inhalation may also harm the nervous, gastrointestinal, renal (kidneys), and hematological (blood) systems.

Carcinogenicity:

<u>COMPONENT</u>	<u>NTP</u>	<u>IARC</u>	<u>OSHA</u>
Acrylic Fiber (P.A.N.)**, Aramid Fiber**, Glass Fibers**, Mineral Fibers(exempt and bio-soluble only) * , Potassium titanate fibers	No	3	No
Aluminum silicate, Aluminum oxide (non fibrous), Barium sulfate, Bismuth sulfide, Brass, Bronze, Calcium oxide, Calcium fluoride, Calcium hydroxide, Cashew (Nutshell Liquid, Particles, Resin-Cured), Chlorobutyl rubber, Copper (fibers and alloys), Copper Sulfide, Graphite, Gilsonite, Iron, Iron chromite, Iron oxide, Iron sulfide, Kyanite, Lithium potassium titanium oxide Magnesium oxide, Mica, Mullite, Molybdenum sulfide, Rubbers (Natural, Nitrile, Silicone & Tire peels), Nonyl phenol plasticizer, Petroleum coke, Phenolic Resin-cured, Polyester plasticizer, Magnesium potassium titanium oxide flake, Silicon carbide, Silica (amorphous), Steel Fiber, Tin, Tin sulfides, Titanium dioxide, Vermiculite, Wollastonite, Zinc (dust and alloy), Zinc sulfide, Zinc oxide, Zirconium oxide and Zirconium silicate	No	No	No

- * The mineral fiber used in some of these formulations has been classified as bio-soluble and is exonerated under ECC directive 97/69/EC, Note Q. The IARC has recently changed the classification of other Mineral Fibers from Group 2 "possible carcinogen" to Group 3 "unclassifiable".
- ** Many of the formulations contain , non respirable grades of fibers

Signs and Symptoms: Skin may become red and itchy with repeated contact. Metal fume fever is characterized by chills, fever, muscle aches, and metallic taste. Anemia may cause dizziness and fatigue. Muscle weakness, fatigue, irritability, poor memory, and headache may indicate neurological effects. Gastrointestinal effects may result in nausea, abdominal pain, diarrhea, constipation, nausea and vomiting.

Medical Conditions Aggravated by Exposure: Overexposure may aggravate pre-existing skin, respiratory, kidney, blood, gastrointestinal and nervous system disorders.

Target Organs: Skin, eyes, lungs, gastrointestinal system.

Symptoms and Effects of Exposure to Selected Individual Components

ACRYLIC FIBERS (P.A.N. Fibers) (> 9 microns in diameter, considered non-respirable)

Inhalation hazard(s) – 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 LD₅₀ values were greater than 5.0 g/kg and 2.0 g/kg, respectively.

Other hazard(s) – 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.