

**Zirconium silicate**

Chronic Toxicity : Inhalation of zirconium compounds may cause pulmonary granulomas. Zirconium silicate contains trace quantities of naturally occurred radioactive uranium and thorium. Inhalation of respirable dusts may cause lung cancer.

**Mica**

Acute Toxicity : Eye contact may cause irritation  
Skin contact may cause irritation  
Ingestion may cause gastrointestinal irritation, nausea and diarrhea.

Chronic Toxicity : Long term exposure to high amount of mica without the approved dust mask may lead to chronic cough, dyspepsia or respiratory dysfunction.

**Copper**

Acute Toxicity : Inhalation can cause cough, headache, shortness of breath, and sore throat.  
Skin contact can cause redness.  
Eye contact can cause redness, pain.  
Ingestion can cause abdominal pain, nausea, and vomiting.

Chronic Toxicity : Repeated or prolonged contact may cause skin sensitization.

**Barium sulfate**

Acute Toxicity : Skin contact may cause irritation.  
Eye contact may cause irritation.

Chronic Toxicity : Lungs may be affected by repeated or prolonged exposure to dust particles, resulting in baritosis (a form of benign pneumoconiosis).

**Graphite**

Acute Toxicity : Inhalation can cause cough.  
Skin contact can cause roughness.

Chronic Toxicity : Lungs may be affected by repeated or prolonged exposure to dusts, resulting in graphite pneumoconiosis.

**Titanium dioxide**

Carcinogenicity : This substance is contained in potassium titanate bulk as solid solution. IARC evaluation is based on powder inhalation, so titanium dioxide in potassium titanate may not present carcinogenicity as powder.

**Zirconium dioxide**

Acute Toxicity : Inhalation may cause mechanical irritation on respiratory tract.  
Skin contact may cause mechanical irritation.  
Eye contact may cause mechanical irritation.  
Ingestion may cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea.

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