

# ALUMINIUM SULFATE

1191

October 1994

CAS No: 10043-01-3  
 RTECS No: BD1700000  
 UN No:  
 EC No:

Aluminium sulphate  
 Aluminium trisulfate  
 Alum  
 $Al_2S_3O_{12} / Al_2(SO_4)_3$   
 Molecular mass: 342.14

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>			In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
<b>Inhalation</b>	Cough. Shortness of breath. Sore throat.	Avoid inhalation of fine dust and mist. Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
<b>Skin</b>	Redness. Pain.	Protective gloves. Protective clothing.	Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Eyes</b>	Corrosive. Redness. Severe deep burns.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal pain. Burning sensation. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting (extra personal protection: P2 filter respirator for harmful particles).	Symbol R: S: UN Hazard Class: UN Pack Group:

EMERGENCY RESPONSE	STORAGE
	Separated from strong bases. Dry.



### IMPORTANT DATA

**Physical State; Appearance**

ODOURLESS WHITE, LUSTROUS CRYSTALS OR POWDER.

**Chemical Dangers**

The substance decomposes on heating or on burning producing toxic and corrosive fumes including sulfur oxides. The solution in water is a medium strong acid. Reacts with alkalis and attacks many metals in presence of water.

**Occupational Exposure Limits**

TLV (as Al soluble salt): ppm; 2 mg/m<sup>3</sup> (ACGIH 1993-1994).

**Routes of Exposure**

The substance can be absorbed into the body by inhalation and by ingestion.

**Inhalation Risk**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed, especially if powdered.

**Effects of Short-term Exposure**

The substance irritates the eyes, the skin and the respiratory tract. Corrosive on ingestion.

### PHYSICAL PROPERTIES

Melting point (decomposes): 770°C

Solubility in water: good

Relative density (water = 1): 2.71

### ENVIRONMENTAL DATA

This substance may be hazardous to the environment; special attention should be given to fish.

### NOTES

Cake alum, pickle alum, filter alum, papermaker's alum and pearl alum are other common names of aluminium sulfate. Occurs in nature as the mineral alunogenite.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

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