

COPPER SULFATE (anhydrous)**0751**

October 2001

CAS No: 7758-98-7
RTECS No: GL8800000
EC No: 029-004-00-0Cupric sulphate
Sulfuric acid, copper(2+) salt(1:1)
CuSO₄
Molecular mass: 159.6

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			

EXPOSURE		PREVENT DISPERSION OF DUST!	
Inhalation	Cough. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest.
Skin	Redness. Pain.	Protective gloves.	Rinse skin with plenty of water or shower.
Eyes	Redness. Pain. Blurred vision.	Face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Burning sensation. Nausea. Vomiting. Diarrhoea. Shock or collapse.	Do not eat, drink, or smoke during work. Wash hands before eating.	Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting then remove to safe place. (Extra personal protection: P2 filter respirator for harmful particles.) Do NOT let this chemical enter the environment.	Xn Symbol N Symbol R: 22-36/38-50/53 S: (2-)22-60-61

EMERGENCY RESPONSE	STORAGE
	Well closed. Dry.

IMPORTANT DATA

Physical State; Appearance

WHITE HYGROSCOPIC CRYSTALS

Chemical dangers

Reacts violently with hydroxylamine causing fire hazard. Reacts with magnesium forming flammable/explosive gas (hydrogen - see ICSC0001).

Attacks iron and zinc in the presence of water.

Occupational exposure limits

TLV (as copper): 1 mg/m³ (as TWA) (ACGIH 2001).

MAK: (as copper) 1 mg/m³ Peak limitation category: II, 1 (DFG 2000).

Routes of exposure

The substance can be absorbed into the body by inhalation of its aerosol 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 is severely irritating to the eyes and the skin.

The aerosol is irritating to the respiratory tract.

Corrosive on ingestion. If ingested, the substance may cause effects on the blood, kidneys and liver, resulting in hemolytic anemia, kidney impairment and liver impairment.

Effects of long-term or repeated exposure

Lungs may be affected by repeated or prolonged exposure to the aerosol. The substance may have effects on the liver when ingested.

PHYSICAL PROPERTIES

Decomposes below boiling point at 650°C
Density: 3.6 g/cm³

Solubility in water, g/100 ml at 20°C: 20.3

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in fish. It is strongly advised that this substance does not enter the environment.

NOTES

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information