

COPPER (I) OXIDE**0421**

September 1997

CAS No: 1317-39-1
RTECS No: GL8050000
EC No: 029-002-00-XDicopper oxide
Cuprous oxide
Red copper oxide
Cu₂O
Molecular mass: 143.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			

EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
Inhalation	Cough. Sore throat. Metal fume fever. Metallic taste. See Notes.	Local exhaust or breathing protection.	Fresh air, rest.
Skin	Dry skin.		Remove contaminated clothes. Rinse and then wash skin with water and soap.
Eyes	Redness. Pain.	Safety goggles 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. Diarrhoea. Nausea. Vomiting. Metallic taste.	Do not eat, drink, or smoke during work.	Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Personal protection: P2 filter respirator for harmful particles.	EU classification Xn Symbol N Symbol R: 22-50/53 S: (2-)22-60-61

EMERGENCY RESPONSE	SAFE STORAGE

IMPORTANT DATA

Physical State; Appearance

YELLOW, RED OR BROWN CRYSTALLINE POWDER.

Occupational exposure limits

TLV: (as Cu, dust) 1 mg/m³ as TWA;
 TLV: (as Cu, fume) 0.2 mg/m³ as TWA; (ACGIH 2007).
 MAK: (Inhalable fraction) 0.1 mg/m³; Peak limitation category: II(2);
 Pregnancy risk group: C; (DFG 2006).

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.

Effects of short-term exposure

The substance irritates the eyes and the respiratory tract. Inhalation of fumes may cause metal fume fever. The substance may cause effects on the kidneys and liver after ingestion. The effects may be delayed.

Effects of long-term or repeated exposure

Repeated or prolonged contact with skin may cause dermatitis.

PHYSICAL PROPERTIES

Decomposes below boiling point at 1800°C
 Melting point: 1232°C

Relative density (water = 1): 6.0
 Solubility in water: none

ENVIRONMENTAL DATA

NOTES

Headache, cough, sweating, nausea and fever may be caused by freshly formed fumes or dust of copper oxide.
 The symptoms of metal fume fever do not become manifest until 4-12 hours after exposure.
 C.I. 77402, Copox, Copper Nordox, Copper Sardex, Perenox, Yellow Cuprocide are trade names.

Card has been partly updated in October 2005. See sections Occupational Exposure Limits, EU classification, Emergency Response.
 Card has been partly updated in October 2006. See sections Occupational Exposure Limits, Ingestion First Aid.
 Card has been partially updated in July 2007: see Occupational Exposure Limits.

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