

CADMIUM SULFIDE

0404
April 2007

CAS No: 1306-23-6
RTECS No: EV3150000
UN No: 2570
EC No: 048-010-00-4

Cadmium monosulphide
Cadmium sulphide
Cadmium monosulfide
CdS
Molecular mass: 144.5

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Water spray, powder.
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!	
Inhalation	Cough.	Local exhaust or breathing protection.	Fresh air, rest.
Skin		Protective gloves.	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 if powder.	Rinse with plenty of water (remove contact lenses if easily possible).
Ingestion	Diarrhoea. Nausea.	Do not eat, drink, or smoke during work.	Rinse mouth. Give one or two glasses of water to drink.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Personal protection: particulate filter adapted to the airborne concentration of the substance. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	<p>EU classification T Symbol N Symbol R: 45-22-48/23/25-62-63-68-53 S: 53-45-61 Note: E</p> <p>UN classification UN Hazard Class: 6.1 UN Pack Group: III</p> <p>GHS classification Signal: Danger Health haz May cause cancer Causes damage to kidneys, bones and respiratory tract through prolonged or repeated exposure May cause long lasting harmful effects to aquatic life</p> <p>Do not transport with food and feedstuffs. Unbreakable packaging; put breakable packaging into closed unbreakable container. Severe marine pollutant.</p>

EMERGENCY RESPONSE	SAFE STORAGE
	Provision to contain effluent from fire extinguishing. Separated from strong oxidants, strong acids, food and feedstuffs. Store in an area without drain or sewer access.

IMPORTANT DATA

Physical State; Appearance

LIGHT YELLOW OR ORANGE CRYSTALS OR YELLOW TO BROWN POWDER.

Chemical dangers

The substance decomposes on burning producing toxic fumes including sulfur oxides. Reacts with strong oxidants. Reacts with acids forming toxic gas (hydrogen sulfide).

Occupational exposure limits

TLV: as Cd (Respirable fraction) as TWA; 0.002 mg/m³ A2 (suspected human carcinogen); BEI issued (ACGIH 2007).
MAK: Cd & inorganic compounds (Inhalable fraction) skin absorption (H); Carcinogen category: 1; Germ cell mutagen group: 3A (DFG 2006).

Routes of exposure

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

Inhalation risk

A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

Effects of short-term exposure

May cause mechanical irritation to the eyes.

Effects of long-term or repeated exposure

The substance may have effects on the kidneys, bones, and respiratory tract, resulting in kidney impairment, osteoporosis (bone weakness), and chronic inflammation of the respiratory tract. This substance is carcinogenic to humans.

PHYSICAL PROPERTIES

Sublimation point: 980/C
Density: 4.8 g/cm³

Solubility in water: none

ENVIRONMENTAL DATA

Bioaccumulation of this chemical may occur along the food chain, for example in plants and in seafood. It is strongly advised not to let the chemical enter into the environment because it persists in the environment.

NOTES

There is little information on the effects of this compound. Health effects are here mainly based on the studies of other cadmium compounds.

Depending on the degree of exposure, periodic medical examination is suggested.

Welding and soldering of surfaces treated with cadmium sulfide release highly toxic cadmium oxide which may cause acute lung injury (see ICSC 0117 - cadmium monoxide).

Do NOT take working clothes home.

Cadmium golden 366, Cadmium lemon yellow, Cadmium orange, Cadmium primrose 819, Cadmium yellow 10G conc., Cadmium yellow conc. primrose, Cadmopur golden yellow N, Cadmopur yellow, Capsebon, Ferro lemon yellow are trade names.

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