

SELENIUM DIOXIDE**0946**

October 2000

CAS No: 7446-08-4
 RTECS No: VS8575000
 UN No: 3283
 EC No: 034-002-00-8

Selenious anhydride
 Selenium oxide
 SeO₂
 Molecular mass: 110.96

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! STRICT HYGIENE!	
Inhalation	Burning sensation. Cough. Laboured breathing. Sore throat. Shortness of breath. Symptoms may be delayed (see Notes).	Local exhaust or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.
Skin	Redness. Pain. Skin burns. Blisters.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Eyes	Redness. Pain. Severe deep burns.	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. Sore throat. Shock or collapse.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place. Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment.	<p>T Symbol N Symbol R: 23/25-33-50/53 S: (1/2-)20/21-28-45-60-61 Note: A UN Hazard Class: 6.1 UN Pack Group: II</p> <p>Do not transport with food and feedstuffs.</p>

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61S3283-II or 61GT5-II	Separated from food and feedstuffs. Dry.

IMPORTANT DATA

Physical State; Appearance

LUSTROUS WHITE HYGROSCOPIC CRYSTALS OR POWDER. ITS YELLOWISH GREEN VAPOUR HAS A PUNGENT SOUR SMELL.

Chemical dangers

The substance decomposes on heating producing toxic fumes. The solution in water is a medium strong acid (selenic acid). Attacks many metals in presence of water.

Occupational exposure limits

TLV: (as Se) 0.2 mg/m³ as TWA; (ACGIH 2004).
MAK: (Inhalable fraction) 0.05 mg/m³ Peak limitation category: II(4); Carcinogen category: 3B; Pregnancy risk group: C; (DFG 2004).

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.

Effects of short-term exposure

The substance is corrosive to the eyes, the skin and the respiratory tract. Inhalation of may cause lung oedema (see Notes). The substance may cause effects on the eyes, resulting in allergic-type reaction of the eyelids (rose eye). Medical observation is indicated.

Effects of long-term or repeated exposure

Repeated or prolonged contact may cause skin sensitization. The substance may have effects on the respiratory tract and gastrointestinal tract, central nervous system and liver, resulting in nasal irritation, persistent garlic odour, stomach pain, nervousness and liver impairment.

PHYSICAL PROPERTIES

Sublimation point: 315°C
Density: 3.95 g/cm³ (at 15°C)

Solubility in water: 40 g/100 ml at 20°C
Vapour pressure, kPa at 70°C: 1.65

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

NOTES

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered. Card has been partly updated in April 2005. See section 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