

CAS No: 111-48-8  
 RTECS No: KM2975000  
 EC No: 603-081-00-6

2,2'-Thiodiethanol  
 Di(2-hydroxyethyl) sulfide  
 Diethanolsulfide  
 Thiodiethylene glycol  
 $C_4H_{10}O_2S$   
 Molecular mass: 122.2

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	Water spray. Foam. Alcohol-resistant foam. Carbon dioxide.
<b>EXPLOSION</b>			
<b>EXPOSURE</b>			
<b>Inhalation</b>	Cough. Nausea.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest.
<b>Skin</b>		Protective gloves.	Rinse skin with plenty of water or shower.
<b>Eyes</b>	Redness. Pain.	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>	Diarrhoea. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting.

**SPILLAGE DISPOSAL**

Personal protection: protective gloves, safety goggles.  
 Collect leaking liquid in covered containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place.

**PACKAGING & LABELLING**

Xi Symbol  
 R: 36  
 S: (2)

**EMERGENCY RESPONSE****SAFE STORAGE**

See Chemical Dangers.

## IMPORTANT DATA

**Physical State; Appearance**

VISCOUS COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Chemical dangers**

The substance decomposes on heating producing toxic and corrosive fumes including acetic acid fumes, hydrogen sulfide and sulfur oxides. Reacts violently with strong acids and strong oxidants to produce hydrogen sulfide.

**Occupational exposure limits**

TLV not established.  
MAK not established.

**Inhalation risk**

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying.

**Effects of short-term exposure**

The substance is mildly irritating to the eyes and the respiratory tract.

## PHYSICAL PROPERTIES

Melting point: -18 - -10/C  
Relative density (water = 1): 1.18  
Solubility in water, g/100 ml at 20/C: 100  
Vapour pressure, Pa at 25/C: 0.43  
Relative vapour density (air = 1): 4.22

Flash point: 160/C o.c.  
Auto-ignition temperature: 260/C  
Explosive limits, vol% in air: 1.2-5.2  
Octanol/water partition coefficient as log Pow: -0.75

## ENVIRONMENTAL DATA

## NOTES

The boiling point is higher than the autoignition temperature.

## 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