

1-PROPANETHIOL

1492
April 2006

CAS No: 107-03-9
RTECS No: TZ7300000
UN No: 2402

1-Mercaptopropane
Propane-1-thiol
n-Propyl mercaptan
 C_3H_8S / $CH_3(CH_2)_2SH$
Molecular mass: 76.2

| TYPES OF HAZARD/ EXPOSURE | ACUTE HAZARDS/SYMPTOMS | PREVENTION | FIRST AID/FIRE FIGHTING |
|---------------------------|--|--|---|
| FIRE | Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire. Heating will cause rise in pressure with risk of bursting. | NO open flames, NO sparks, and NO smoking. | powder, foam, carbon dioxide. |
| EXPLOSION | Vapour/air mixtures are explosive. | Closed system, ventilation, explosion-proof electrical equipment and lighting. | In case of fire: keep drums, etc., cool by spraying with water. |

| EXPOSURE | | | |
|-------------------|---|--|---|
| Inhalation | Cough. Drowsiness. Dizziness. Headache, nausea, | Ventilation, local exhaust, or breathing protection. | Fresh air, rest. |
| Skin | Redness. | Protective gloves. | Rinse and then wash skin with water and soap. |
| Eyes | Redness. Pain. | Safety spectacles, | First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor. |
| Ingestion | (see Inhalation). | Do not eat, drink, or smoke during work. | Do NOT induce vomiting. Give one or two glasses of water to drink. Refer for medical attention. |

| SPILLAGE DISPOSAL | PACKAGING & LABELLING |
|--|---|
| Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: filter respirator for organic gases and vapours. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. | UN classification UN Hazard Class: 3 UN Pack Group: II |

| EMERGENCY RESPONSE | SAFE STORAGE |
|--|--|
| Transport Emergency Card: TEC (R)-30GF1-I+II | Fireproof, cool, Keep in a well-ventilated room, separated from strong oxidants, strong bases, strong acids. |

IMPORTANT DATA

Physical State; Appearance

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Physical dangers

The vapour is heavier than air and may travel along the ground; distant ignition possible.

Chemical dangers

On combustion, forms corrosive fumes, including hydrogen sulfide and sulfur oxides. Reacts violently with oxidants, reducing agents, strong acids, and strong bases.

Occupational exposure limits

TLV not established.
MAK not established.

Routes of exposure

The substance can be absorbed into the body by inhalation and by ingestion

Inhalation risk

No indication can be given about the rate in which a harmful concentration in the air is reached on evaporation of this substance at 20/C.

Effects of short-term exposure

The substance is irritating to the eyes, the skin and the respiratory tract. Exposure at high levels could cause lowering of consciousness.

PHYSICAL PROPERTIES

Boiling point: 68 /C
Melting point: -113 /C
Relative density (water = 1): 0.84
Solubility in water, g/100 ml at 25/C: 0.190
Vapour pressure, kPa at 25/C: 20.7 (calc.)

Relative vapour density (air = 1): 2.63
Relative density of the vapour/air-mixture at 20/C (air = 1): 1.101
Flash point: -20/C
Octanol/water partition coefficient as log Pow: 1.7 (estimated)

ENVIRONMENTAL DATA

NOTES

Health effects of exposure to the substance have not been investigated adequately.
Environmental effects from the substance have not been investigated adequately.
Card has been partially updated in January 2008: see Ingestion First Aid.

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