

ETHANOLAMINE

0152
October 2002

CAS No: 141-43-5
RTECS No: KJ5775000
UN No: 2491
EC No: 603-030-00-8

2-Hydroxyethylamine
2-Aminoethanol
C₂H₇NO / H₂NCH₂CH₂OH
Molecular mass: 61.1

| 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. | Powder, alcohol-resistant foam, water spray, carbon dioxide. |
| EXPLOSION | Above 85/C explosive vapour/air mixtures may be formed. | Above 85/C use a closed system, ventilation. | |

| EXPOSURE | | STRICT HYGIENE! PREVENT GENERATION OF MISTS! | |
|-------------------|---|--|---|
| Inhalation | Cough. Headache. Shortness of breath. Sore throat. | Ventilation, local exhaust, or breathing protection. | Fresh air, rest. Refer for medical attention. |
| Skin | Redness. Pain. Skin burns. | 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. Shock or collapse. | Do not eat, drink, or smoke during work. | Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. Refer for medical attention. |

| SPILLAGE DISPOSAL | PACKAGING & LABELLING |
|---|---|
| Collect leaking liquid in sealable containers. Cautiously neutralize spilled liquid. Then wash away with plenty of water. Personal protection: filter respirator for organic gases and vapours. | C Symbol R: 20/21/22-34 S: (1/2-)26-36/37/39-45 UN Hazard Class: 8 UN Pack Group: III Do not transport with food and feedstuffs. |

| EMERGENCY RESPONSE | SAFE STORAGE |
|---|---|
| Transport Emergency Card: TEC (R)-80GC7-II+III NFPA Code: H3; F2; R0 | Separated from strong oxidants, strong acids, aluminium, food and feedstuffs. Dry. Ventilation along the floor. |

IMPORTANT DATA

Physical State; Appearance

COLOURLESS, VISCOUS, HYGROSCOPIC LIQUID, WITH CHARACTERISTIC ODOUR.

Chemical dangers

The substance decomposes on heating and on burning producing toxic and corrosive gases including nitrogen oxides. The substance is a medium strong base. Reacts with cellulose nitrate causing fire and explosion hazard. Reacts violently with strong acids and strong oxidants. Attacks copper, aluminium and their alloys, and rubber.

Occupational exposure limits

TLV: as TWA 3 ppm; as STEL 6 ppm; (ACGIH 2004).
MAK: 2 ppm, 5.1 mg/m³; Sh; Peak limitation category: I(2);
Pregnancy risk group: C; (DFG 2004).

Routes of exposure

The substance can be absorbed into the body by inhalation, by ingestion and through the skin.

Inhalation risk

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20/C; on spraying or dispersing, however, much faster.

Effects of short-term exposure

The substance is corrosive to the respiratory tract, the skin and the eyes. Corrosive on ingestion. The vapour is irritating to the eyes, the skin and the respiratory tract. The substance may cause effects on the central nervous system. Exposure could cause lowering of consciousness.

Effects of long-term or repeated exposure

Repeated or prolonged contact may cause skin sensitization.

PHYSICAL PROPERTIES

Boiling point: 171/C
Melting point: 10/C
Relative density (water = 1): 1.02
Solubility in water: very good
Vapour pressure, Pa at 20/C: 53
Relative vapour density (air = 1): 2.1

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.00
Flash point: 85/C c.c.
Auto-ignition temperature: 410/C
Explosive limits, vol% in air: 5.5-17
Octanol/water partition coefficient as log Pow: -1.31 (estimated)

ENVIRONMENTAL DATA

NOTES

Depending on the degree of exposure, periodic medical examination is suggested.
The odour warning when the exposure limit value is exceeded is insufficient.
Do NOT take working clothes home.
Card has been partly updated in October 2004. See sections Occupational Exposure Limits, EU classification, Emergency Response.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible