1. PRODUCT AND COMPANY IDENTIFICATION

Product name: β-mercaptoethanol
Product Number:
Brand: Edvotek
Supplier: Edvotek
1121 5th Street NW
Washington, DC 20001
Telephone: 1-800-338-6835 or 202-370-1500
Fax: 202-370-1501
Emergency Phone # (For both supplier and Manufacturer):
202-370-1500

2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Acute toxicity
Acute aquatic toxicity
Chronic aquatic toxicity
Serious eye damage
Flammable liquids
Combustible liquid.
Toxic if swallowed.
Toxic if swallowed or if inhaled
Fatal in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Toxic if inhaled.
May cause damage to organs through prolonged or repeated exposure if swallowed.
Very toxic to aquatic life.

GHS Classification
Flammable liquids 4,
Acute toxicity, Oral 3
Acute toxicity, Inhalation 3
Acute toxicity, Dermal 2
Skin irritation 2
Serious eye damage 1
Skin sensitisation 1
Acute aquatic toxicity 1
Chronic aquatic toxicity 1
Signal word
Danger

Pictograms

Hazard statement(s)
H227 Combustible liquid.
H301 + H331 Toxic if swallowed or if inhaled
H310 Fatal in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction
H318 Causes serious eye damage.
H373 May cause damage to organs (Liver, Heart) through prolonged or repeated exposure if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
P302 + P350 + P310 IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/ physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P311 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P314 Get medical advice/ attention if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P361 Remove/Take off immediately all contaminated clothing.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 Collect spillage.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container to an approved waste disposal plant.

**HMIS Classification:**
- Health hazard: 4
- Flammability: 2
- Physical hazard: 0

**NFPA Rating:**
- Health hazard: 3
- Fire: 2

Reactivity Hazard: 0

**Potential Health Effects:**
- **Inhalation** Harmful if inhaled. Causes respiratory tract irritation.
- **Skin-** Harmful if absorbed through skin. Causes skin irritation.
- **Eyes-** Cause eye irritation.
- **Ingestion-** Harmful if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms:** 2-Hydroxyethylmercaptan, Thioethylene glycol, β-Mercaptoethanol, beta mercaptoethanol, BME

**Formula:** C₂H₆OS

**Molecular weight:** 78.13 g/mol

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No.</th>
<th>CAS –No</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Mercaptoethanol</td>
<td>200-464-6</td>
<td>60-24-2</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of eye contact
Flush eyes with water as a precaution. Get medical attention immediately if irritation persists.

In case of skin contact
Immediately wash off with soap and plenty of water. Get medical attention if symptoms develop.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention if symptoms develop.

5. FIREFIGHTING MEASURES

Conditions of flammability
Flammable.

Suitable extinguishing media
Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Carbon oxides, Sulphur oxides
6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Prevent skin/eye contact. Use personal protective equipment as needed.

Environmental precautions
Dilute with plenty of water. Do not allow to enter sewers/surface or ground water.

Methods and materials for containment and cleaning up
Clean up spills immediately. Use absorbent materials if needed and dispose into a chemical waste container.

7. HANDLING AND STORAGE

Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Incompatible storage
No products known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment
Respiratory protection
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Wear protective gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
**Eye protection**
Avoid eye contact with this material. Wear chemical safety goggles.

**Skin and body protection**
Use chemical gloves as needed. Use clean protective body covering clothing as needed to minimize contact with clothing and skin.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash and dry hands at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
Form liquid
Colour colorless

**Safety data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Data Available</th>
</tr>
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<tbody>
<tr>
<td>pH</td>
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<td>Melting point/freezing point</td>
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<tr>
<td>Boiling point</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Ignition temperature</td>
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<tr>
<td>Autoignition Temperature</td>
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<tr>
<td>Lower explosion limit</td>
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<tr>
<td>Upper explosion limit</td>
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<td>Vapour pressure</td>
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<td>Density</td>
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<td>Partition coefficient:</td>
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<td>n-octanol/water</td>
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<td>Relative vapour Density</td>
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<tr>
<td>Odour</td>
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<tr>
<td>Odour Threshold</td>
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</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No further relevant data available.

Conditions to avoid
Heat, flames and sparks.

Materials to avoid
Metals, Oxidizing agents.

Hazardous decomposition products
No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral LD50
LD50 Oral - Rat - 98 - 162 mg/kg
LC50 Inhalation - Rat - 4 h - 2 mg/l
LC50 Inhalation - Rat - 4 h - 625 ppm
LD50 Dermal - Rabbit - 112 mg/kg

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available
Germ cell mutagenicity
In vitro tests showed mutagenic effects

Reproductive toxicity
no data available

Teratogenicity
no data available

Aspiration hazard
no data available

Synergistic effects
no data available

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available
13. DISPOSAL CONSIDERATIONS

Product
Dispose of unused product, residues, and containers according to local, regional, state, and national regulations.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Acute aquatic toxicity
Chronic aquatic toxicity
Serious eye damage
Flammable liquids
Combustible liquid.
Toxic if swallowed.
Toxic if swallowed or if inhaled
Fatal in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Toxic if inhaled.
May cause damage to organs through prolonged or repeated exposure if swallowed.
Very toxic to aquatic life.
SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards.

16. OTHER INFORMATION

For educational use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.