

# Hydroxyethyl Methacrylate MSDS

## 1. Product Name and Identification

**Product Name:** [Hydroxyethyl Methacrylate](#)

**Synonyms:** 2-Hydroxyethyl Methacrylate, HEMA, Glycol Methacrylate

**CAS Number:** 868-77-9

**Relevant Identifiers:** EINECS No. 212-782-2, UN No. Not regulated

## 2. Composition/Ingredients

**Chemical Composition:**

- **Hydroxyethyl Methacrylate** (Main Ingredient): 97-100%

CAS Number: 868-77-9

## 3. Hazards Identification

**Classification:**

- **Physical Hazards:** Not flammable under normal conditions but combusts at high temperatures. Toxic fumes may be released upon decomposition.
- **Health Hazards:**
  - May cause skin sensitization or irritation.
  - Prolonged exposure can lead to respiratory irritation.
  - Harmful if swallowed.
- **Environmental Hazards:**
  - Moderate environmental toxicity; avoid release to water or soil.

**Signal Word:** WARNING

**Precautionary Statements:**

- Avoid direct contact with skin, eyes, and clothing.
- Use with adequate ventilation to prevent inhalation.
- Handle and store responsibly to prevent environmental contamination.

## 4. First Aid Measures

- **Inhalation:** Move the individual to fresh air promptly. Administer oxygen or artificial respiration if breathing is impaired. Seek immediate medical attention if symptoms worsen.

- **Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing and seek medical advice if irritation persists.
- **Eye Contact:** Rinse the eyes gently with water for at least 15 minutes, lifting both upper and lower eyelids. Seek medical attention if irritation continues or vision is affected.
- **Ingestion:** Do not induce vomiting. Rinse the mouth with water and drink small amounts of water if conscious. Obtain medical assistance promptly.

## 5. Handling and Storage

### Handling:

- Always wear proper personal protective equipment (PPE) when working with the product.
- Avoid inhalation of vapors and contact with skin or eyes.
- Use only in areas with adequate ventilation.

### Storage:

- Store in a cool, well-ventilated area away from direct sunlight and other heat sources.
- Keep containers tightly sealed and protect from moisture.
- Separate from incompatible materials such as oxidizing agents or acids.

## 6. Exposure Controls/Personal Protection

### Exposure Limits:

- No official OSHA or ACGIH exposure limits established; consult local regulations.

### Engineering Controls:

- Provide adequate ventilation, including local exhaust systems, to limit vapor exposure.

### Personal Protective Equipment (PPE):

- **Respiratory Protection:** When ventilation is insufficient, use a respirator with organic vapor cartridges.
- **Skin Protection:** Chemical-resistant gloves (e.g., nitrile or rubber) are recommended.
- **Eye Protection:** Safety goggles or chemical splash-proof glasses.
- **Body Protection:** Use protective clothing to prevent contact with skin.

## 7. Physical and Chemical Properties

- **Appearance:** Clear, colorless to slightly yellow liquid
- **Odor:** Mild, ester-like odor
- **Boiling Point:** Approx. 95–100°C (203–212°F)
- **Melting Point:** -12°C (10.4°F)

- **Solubility in Water:** Slightly soluble
- **Vapor Pressure:** 0.75 mmHg at 20°C
- **Density:** Approx. 1.07 g/cm<sup>3</sup> at 25°C
- **pH:** Neutral when in aqueous solution

## 8. Stability and Reactivity

### Stability:

- Stable under recommended storage and handling conditions.

### Conditions to Avoid:

- Excess heat, flames, and direct sunlight.
- Prolonged exposure to moisture or humid conditions may lead to product degradation.

### Hazardous Reactions:

- Avoid contact with strong oxidizing agents, acids, and bases; such interactions may produce toxic fumes (e.g., carbon monoxide or carbon dioxide).

## 9. Toxicological Information

### Acute Toxicity:

- **Dermal LD50** (rabbit): > 5,000 mg/kg (non-toxic through skin contact).
- **Oral LD50** (rat): Approx. 5,200 mg/kg (low toxicity if ingested).

### Chronic Exposure:

- Prolonged inhalation may cause headache, dizziness, or respiratory discomfort.
- Repeated skin contact may lead to sensitization or allergic reactions.

### Irritation:

- May irritate skin, eyes, and respiratory tract on direct or repeated exposure.

## 10. Disposal Considerations

### Disposal Guidance:

- Dispose of this product in accordance with national and local regulations.
- Avoid discharge into drains, soils, or waterways.
- Use licensed waste handlers to manage chemical disposal effectively.

**Note:** This safety data sheet is provided for guidance only. Always consult local regulations and use expert chemical management services to ensure compliance.