Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: Ethanolamine, Minimum 98%
Product Number: E9508
Brand: Sigma Chemicals
Company: Sigma-Aldrich
Street Address: 3333 Spruce St.
City, State, Zip Country: SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Fax: 800 325 5062
Emergency Phone: 414 273 3650 Ext. 5996

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
<th>EC No.</th>
<th>Annex I Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-AMINOPHENOXOL</td>
<td>144-43-5</td>
<td>No</td>
<td>205-483-3</td>
<td>603-030-00-8</td>
</tr>
</tbody>
</table>

Formula:

C7H15NO

Synonyms:

2-Aminopropylamine (German), 2-Aminophenoxypropylamine (German), 2-Aminophenoxypropylamine (Italian), 2-Aminophenoxypropylamine (OSHA), 2-Aminophenoxypropylamine (beta-Aminophenoxypropylamine), 2-Aminophenoxypropylamine (beta-Hydroxyethylamine), 2-Hydroxyethanamine, 2-Methylamine (Czech), Minoalkylamine (German), Minoalkylamine (Japanese), Minoalkylamine (Clamire), Minoalkylamine (ISO 819-1997)

Section 3 - Hazards Identification

Emergency Overview:

Corrosive:

Causes burns. Harmful by inhalation, in contact with skin and if swallowed. Readily absorbed through skin. Combustible.

HMIS Rating

Health: 3
Flammability: 2
Reactivity: 1

NFPA Rating

Health: 3
Flammability: 2
Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure:

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

Inhalation Exposure:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Section 5 - Fire Fighting Measures

Flash Point: 199.4 °C
Explosion Limits: Lower: 2.5 %
Autoignition Temp: 780 °C
Extinguishing Media:

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting Protective Equipment:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s):

Combustible liquid, emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill:

Evacuate area.

Procedure(s) of Personal Precaution(s):

Year self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up:

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling:

User Exposure:

Do not breathe vapor. Do not get in eyes, on skin, or clothing. Avoid prolonged or repeated exposure.

Storage:

Suitable:

Keep tightly closed.

Special Requirements:

Hygroscopic.

Section 8 - Exposure Controls / PPE

Engineering Controls:

Safety shower and eye bath. Use only in a chemical fume hood.

Personal Protective Equipment:

Respiratory:

Government approved respirator.

Hand:

Compatible chemical-resistant gloves.

Sigma-Aldrich Corporation
Page 2
Section 9 - Physical/Chemical Properties

**Appearance**
- Physical State: Viscous liquid
- Color: Colorless

**Molecular Weight:** 61.08 AMU

**Property** | **Value** | **At Temperature or Pressure**
---|---|---
Density | 915 g/cm³ | 20°C

**Number of Data Points:** 1

**Section 10 - Stability and Reactivity**

**Stability**
- Conditions of instability: Absorbs carbon dioxide from air.
- Conditions to Avoid: Protect from moisture.
- Materials to Avoid: Galvanized iron, Oxidizing agents, Copper.

**Hazardous Decomposition Products**
- Carbon monoxide, Carbon dioxide.

**Hazardous Polymerization**
- Will not occur.

**Section 11 - Toxicological Information**

**Route of Exposure**
- Skin Contact: Causes burns.
- Skin Absorption: May be harmful if absorbed through the skin.
- Eye Contact: Causes burns.
- Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Harmful if inhaled. Ingestion: Harmful if swallowed.

**Signs and Symptoms of Exposure**
- Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonia, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**Route of Exposure**
- Skin Contact: Causes burns.
- Skin Absorption: May be harmful if absorbed through the skin.
- Eye Contact: Causes burns.
- Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Harmful if inhaled. Ingestion: Harmful if swallowed.

**Signs and Symptoms of Exposure**
- Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonia, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**RTECS Number:** KJ775000

**Toxicity Data**
- Oral - Rat: 1720 mg/kg (LD50)
- Intraperitoneal - Rat: 67 mg/kg (LD50)
- Subcutaneous - Rat: 1500 mg/kg (LD50)
- Intravenous - Rat: 225 mg/kg (LD50)
- Intramuscular - Rat: 1750 mg/kg (LD50)
- Oral - Mouse: 700 mg/kg (LD50)
- Intraperitoneal - Mouse: 50 mg/kg (LD50)
- Oral - Rabbit: 1000 mg/kg (LD50)
Section 15 - Regulatory Information

EU Directive Classification
Symbol of Danger: Xn
Indication of Danger: Harmful.
Risk Statements: R: 20 36/37/38
Harmful by inhalation; irritating to eyes, respiratory system and skin.

US Classification and Label Text
Indication of Danger: Corrosive.
Safety Statements:
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

United States Regulatory Information
SARA Listed: No

Section 12 - Ecological Information
No data available.

Section 13 - Disposal Considerations
Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material.
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state, and local environmental regulations.