1. PRODUCT AND COMPANY IDENTIFICATION

Product name: DL-1-Amino-2-propanol
Product Number: W396508
Brand: Aldrich
Supplier: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052
Emergency Phone #: (314) 776-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Combustible Liquid, Harmful by ingestion., Harmful by skin absorption., Corrosive

GHS Classification
Flammable liquids (Category 4)
Acute toxicity, Oral (Category 4)
Acute toxicity, Dermal (Category 4)
Skin corrosion (Category 1B)
Serious eye damage (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word
Danger

Hazard statement(s)
H227 Combustible liquid
H302 + H312 Harmful if swallowed or in contact with skin
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.

HMIS Classification
Health hazard: 3
Flammability: 2
Physical hazards: 0

NFPA Rating
Health hazard: 3
Fire: 2
Reactivity Hazard: 0

Potential Health Effects

**Inhalation**
May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin**
Harmful if absorbed through skin. Causes skin burns.

**Eyes**
Causes eye burns.

**Ingestion**
Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms:** (±)-1-Amino-2-propanol
(±)-Isopropanolamine

**Formula:** C₃H₉NO

**Molecular Weight:** 75.11 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Aminopropan-2-ol</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>78-96-6</td>
</tr>
<tr>
<td>EC-No.</td>
<td>201-162-7</td>
</tr>
<tr>
<td>Index-No.</td>
<td>603-082-00-1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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

**In case of skin contact**
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**If swallowed**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

**Conditions of flammability**
Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

**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**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

**Further information**
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES
**Personal precautions**
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

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### 7. HANDLING AND STORAGE

#### Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### 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.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

- **Respiratory protection**
  Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

- **Hand protection**
  Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

- **Eye protection**
  Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

- **Skin and body protection**
  Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Form: clear, liquid
- Colour: colourless

**Safety data**
- pH: no data available
- Melting point/range: -2 °C (28 °F) - lit.
- Boiling point: 160 °C (320 °F) - lit.
- Flash point: 71 °C (160 °F) - closed cup
<table>
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<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<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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<tr>
<td>Vapour pressure</td>
<td>&lt; 1 hPa (&lt; 1 mmHg) at 20 °C (68 °F)</td>
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<tr>
<td>Density</td>
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<tr>
<td>Water solubility</td>
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<td>Partition coefficient: n-octanol/water</td>
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</tr>
<tr>
<td>Relative vapour density</td>
<td>2.59 - (Air = 1.0)</td>
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<tr>
<td>Odour</td>
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</tr>
<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 data available

**Conditions to avoid**
Heat, flames and sparks.

**Materials to avoid**
Strong oxidizing agents

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)
Other decomposition products - no data available

### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Oral LD50**
LD50 Oral - rat - 1,715 mg/kg

**Inhalation LC50**
no data available

**Dermal LD50**
LD50 Dermal - rabbit - 1,573 mg/kg

**Other information on acute toxicity**
no data available

**Skin corrosion/irritation**
Skin - rabbit - Mild skin irritation - 24 h

**Serious eye damage/eye irritation**
Eyes - rabbit - Severe eye irritation - 24 h

**Respiratory or skin sensitization**
no data available

**Germ cell mutagenicity**
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
Reproductive toxicity - rat - Unreported
Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion Harmful if swallowed.
Skin Harmful if absorbed through skin. Causes skin burns.
Eyes Causes eye burns.

Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Synergistic effects
no data available

Additional Information
RTECS: UA5775000

12. ECOLOGICAL INFORMATION
Toxicity
Toxicity to fish LC50 - Carassius auratus (goldfish) - 210 mg/l - 96 h

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available
13. DISPOSAL CONSIDERATIONS

**Product**
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
Dispose of as unused product.

14. TRANSPORT INFORMATION

**DOT (US)**
- UN number: 2735  
- Class: 8  
- Packing group: II  
- Proper shipping name: Amines, liquid, corrosive, n.o.s. (1-Aminopropan-2-ol)  
- Marine pollutant: No  
- Poison Inhalation Hazard: No

**IMDG**
- UN number: 2735  
- Class: 8  
- Packing group: II  
- EMS-No: F-A, S-B  
- Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (1-Aminopropan-2-ol)  
- Marine pollutant: No

**IATA**
- UN number: 2735  
- Class: 8  
- Packing group: II  
- Proper shipping name: Amines, liquid, corrosive, n.o.s. (1-Aminopropan-2-ol)

15. REGULATORY INFORMATION

**OSHA Hazards**
Combustible Liquid, Harmful by ingestion., Harmful by skin absorption., Corrosive

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
SARA 313: 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**
Fire Hazard, Acute Health Hazard

**Massachusetts Right To Know Components**

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**Pennsylvania Right To Know Components**

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**New Jersey Right To Know Components**

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**California Prop. 65 Components**
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION
Further information
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