

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Methacrolein

Product Number : 133035  
Brand : Aldrich

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +18003255832  
Fax : +18003255052  
Emergency Phone # : (314) 776-6555

**2. HAZARDS IDENTIFICATION****Emergency Overview****OSHA Hazards**

Flammable liquid, Toxic by ingestion, Toxic by skin absorption, Corrosive

**Other hazards which do not result in classification**

Lachrymator.

**GHS Label elements, including precautionary statements**

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
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: 3  
Physical hazards: 0

**NFPA Rating**

Health hazard: 3  
Fire: 3  
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**

Toxic if absorbed through skin. Causes skin burns.

**Eyes**  
**Ingestion**

Causes eye burns.  
Toxic if swallowed. Causes burns.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Methacrylaldehyde  
Formula : C<sub>4</sub>H<sub>6</sub>O  
Molecular Weight : 70.09 g/mol

| CAS-No.             | EC-No.    | Index-No. | Concentration |
|---------------------|-----------|-----------|---------------|
| <b>Methacrolein</b> |           |           |               |
| 78-85-3             | 201-150-1 | -         | -             |

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### 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. Take victim immediately to hospital. Consult a physician.

**In case of eye contact**

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

**If swallowed**

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

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### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

Use water spray to cool unopened containers.

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### 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 non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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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. Store in cool place.

Recommended storage temperature: 2 - 8 °C

Light sensitive. Air sensitive.

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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.

#### Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum).

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form                      liquid

### Safety data

|                         |   |
|-------------------------|---|
| pH                      | no data available   |
| Melting point           | -81 °C (-114 °F) - lit.   |
| Boiling point           | 68 - 70 °C (154 - 158 °F) - lit.  |
| Flash point             | -15 °C (5 °F) - closed cup  |
| Ignition temperature    | no data available   |
| Lower explosion limit   | no data available   |
| Upper explosion limit   | no data available   |
| Vapour pressure         | 368.763 hPa (276.595 mmHg) at 20 °C (68 °F)<br>926.388 hPa (694.848 mmHg) at 55 °C (131 °F) |
| Density                 | 0.85 g/cm <sup>3</sup> at 25 °C (77 °F)   |
| Water solubility        | no data available   |
| Relative vapour density | 2.42<br>- (Air = 1.0)   |

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Vapours may form explosive mixture with air.

**Conditions to avoid**

Air Light.

Heat, flames and sparks.

**Materials to avoid**

Strong bases, Strong oxidizing agents, Strong reducing agents Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Dermal - rabbit - 366 mg/kg

**Skin corrosion/irritation**

Skin - rabbit -

**Serious eye damage/eye irritation**

Eyes - rabbit -

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**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**

no data available

**Specific target organ toxicity - single exposure (GHS)**

no data available

**Specific target organ toxicity - repeated exposure (GHS)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. |
| <b>Ingestion</b>  | Toxic if swallowed. Causes burns.   |
| <b>Skin</b>       | Toxic if absorbed through skin. Causes skin burns.  |
| <b>Eyes</b>       | 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., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

**Additional Information**

RTECS: OZ2625000

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## 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

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## 13. DISPOSAL CONSIDERATIONS

### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### DOT (US)

UN-Number: 2396 Class: 3 (6.1) Packing group: II  
Proper shipping name: Methacrylaldehyde, stabilized  
Marine pollutant: No  
Poison Inhalation Hazard: No

### IMDG

UN-Number: 2396 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D  
Proper shipping name: METHACRYLALDEHYDE, STABILIZED  
Marine pollutant: No

### IATA

UN-Number: 2396 Class: 3 (6.1) Packing group: II  
Proper shipping name: Methacrylaldehyde, stabilized

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## 15. REGULATORY INFORMATION

### OSHA Hazards

Flammable liquid, Toxic by ingestion, Toxic by skin absorption, Corrosive

### DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Methacrolein

CAS-No.  
78-85-3

### 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**

Methacrolein

CAS-No.  
78-85-3Revision Date  
1993-04-24**Pennsylvania Right To Know Components**

Methacrolein

CAS-No.  
78-85-3Revision Date  
1993-04-24**New Jersey Right To Know Components**

Methacrolein

CAS-No.  
78-85-3Revision Date  
1993-04-24**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.

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**16. OTHER INFORMATION****Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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