

## SAFETY DATA SHEET

Version 5.8  
Revision Date 05/24/2016  
Print Date 10/19/2018

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1. PRODUCT AND COMPANY IDENTIFICATION

## 1.1 Product identifiers

Product name : Hydroxypropyl methacrylate

Product Number : 268542  
Brand : Aldrich

CAS-No. : 27813-02-1

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

## 1.3 Details of the supplier of the safety data sheet

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

Telephone : +1 800-325-5832  
Fax : +1 800-325-5052

## 1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

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2. HAZARDS IDENTIFICATION

## 2.1 Classification of the substance or mixture

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Skin sensitisation (Category 1), H317  
Germ cell mutagenicity (Category 1B), H340  
Carcinogenicity (Category 2), H351

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word : Danger

Hazard statement(s)

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H340 May cause genetic defects.  
H351 Suspected of causing cancer.

Precautionary statement(s)

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.

|                    |  |
|--------------------|--|
| P261               | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.   |
| P264               | Wash skin thoroughly after handling.   |
| P272               | Contaminated work clothing should not be allowed out of the workplace.   |
| P280               | Wear protective gloves/ protective clothing/ eye protection/ face protection.  |
| P302 + P352        | IF ON SKIN: Wash with plenty of soap and water.  |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313        | IF exposed or concerned: Get medical advice/ attention.  |
| P333 + P313        | If skin irritation or rash occurs: Get medical advice/ attention.  |
| P337 + P313        | If eye irritation persists: Get medical advice/ attention.   |
| P362               | Take off contaminated clothing and wash before reuse.  |
| P405               | Store locked up.   |
| P501               | Dispose of contents/ container to an approved waste disposal plant.  |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

|                  |   |
|------------------|---|
| Formula          | : C <sub>7</sub> H <sub>12</sub> O <sub>3</sub> |
| Molecular weight | : 144.17 g/mol                                  |

#### Hazardous components

| Component  | Classification   | Concentration    |
|--|--|------------------|
| <b>methacrylic acid, monoester with propane-1,2-diol</b>   |  |                  |
| CAS-No. 27813-02-1<br>EC-No. 248-666-3   | Eye Irrit. 2A; Skin Sens. 1;<br>H317, H319   | >= 90 - <= 100 % |
| <b>2-Methylpropenoic acid</b>  |  |                  |
| CAS-No. 79-41-4<br>EC-No. 201-204-4<br>Index-No. 607-088-00-5  | Flam. Liq. 4; Acute Tox. 4;<br>Acute Tox. 3; Skin Corr. 1A;<br>Eye Dam. 1; STOT SE 3;<br>Aquatic Acute 3; H227, H302<br>+ H332, H311, H314, H318,<br>H335, H402  | >= 1 - < 5 %     |
| <b>Methyloxirane</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) |  |                  |
| CAS-No. 75-56-9<br>EC-No. 200-879-2<br>Index-No. 603-055-00-4<br>Registration number 01-2119480483-35-XXXX                                       | Flam. Liq. 1; Acute Tox. 4;<br>Acute Tox. 3; Acute Tox. 4;<br>Skin Irrit. 2; Eye Dam. 1; Muta.<br>1B; Carc. 1B; STOT SE 3;<br>Aquatic Acute 3; H224, H302<br>+ H312, H315, H318, H331,<br>H335, H340, H350, H402 | >= 0.1 - < 1 %   |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### 4.1 Description of 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

Wash off with soap and plenty of water. 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**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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**5. FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

No data available

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

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**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

**6.2 Environmental precautions**

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

**6.3 Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

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**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

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.

Recommended storage temperature 2 - 8 °C

Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****Components with workplace control parameters**

| Component              | CAS-No. | Value  | Control parameters                 | Basis   |
|------------------------|---------|--|------------------------------------|---|
| 2-Methylpropenoic acid | 79-41-4 | TWA  | 20 ppm                             | USA. ACGIH Threshold Limit Values (TLV)   |
|                        | Remarks | Eye irritation<br>Skin irritation  |                                    |   |
|                        |         | TWA  | 20.000000 ppm                      | USA. ACGIH Threshold Limit Values (TLV)   |
|                        |         | Eye irritation<br>Skin irritation  |                                    |   |
|                        |         | TWA  | 20.000000 ppm<br>70.000000 mg/m3   | USA. NIOSH Recommended Exposure Limits  |
|                        |         | Potential for dermal absorption  |                                    |   |
|                        |         | TWA  | 20 ppm<br>70 mg/m3                 | USA. NIOSH Recommended Exposure Limits  |
|                        |         | Potential for dermal absorption  |                                    |   |
|                        |         | PEL  | 20 ppm<br>70 mg/m3                 | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
|                        |         | Skin   |                                    |   |
| Methyloxirane          | 75-56-9 | TWA  | 2.000000 ppm                       | USA. ACGIH Threshold Limit Values (TLV)   |
|                        |         | Upper Respiratory Tract irritation<br>Eye irritation<br>Adopted values or notations enclosed are those for which changes are proposed in the NIC<br>See Notice of Intended Changes (NIC)<br>Confirmed animal carcinogen with unknown relevance to humans<br>Sensitizer |                                    |   |
|                        |         | Potential Occupational Carcinogen<br>See Appendix A  |                                    |   |
|                        |         | TWA  | 100.000000 ppm<br>240.000000 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants        |
|                        |         | The value in mg/m3 is approximate.   |                                    |   |
|                        |         | TWA  | 2 ppm                              | USA. ACGIH Threshold Limit Values (TLV)   |
|                        |         | Dermal Sensitization<br>Upper Respiratory Tract irritation<br>Eye irritation<br>2015 Adoption<br>Confirmed animal carcinogen with unknown relevance to humans  |                                    |   |
|                        |         | PEL  | 2 ppm<br>4.75 mg/m3                | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |

Hazardous components without workplace control parameters

## 8.2 Exposure controls

### Appropriate engineering controls

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

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin 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.

#### Full contact

Material: Chloroprene

Minimum layer thickness: 0.6 mm

Break through time: 480 min

Material tested: Camapren® (KCL 722 / Aldrich Z677493, Size M)

#### Splash contact

Material: Chloroprene

Minimum layer thickness: 0.6 mm

Break through time: 480 min

Material tested: Camapren® (KCL 722 / Aldrich Z677493, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### 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.

### 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).

### Control of environmental exposure

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |   |  |
|---|--|
| a) Appearance                                   | Form: liquid                             |
| b) Odour  | No data available                        |
| c) Odour Threshold                              | No data available                        |
| d) pH   | No data available                        |
| e) Melting point/freezing point                 | Melting point/range: -60 °C (-76 °F)     |
| f) Initial boiling point and boiling range      | 205 - 209 °C (401 - 408 °F)              |
| g) Flash point                                  | 95 °C (203 °F) - closed cup              |
| h) Evaporation rate                             | No data available                        |
| i) Flammability (solid, gas)                    | No data available                        |
| j) Upper/lower flammability or explosive limits | No data available                        |
| k) Vapour pressure                              | 0.066 hPa (0.050 mmHg) at 20 °C (68 °F)  |
| l) Vapour density                               | No data available                        |
| m) Relative density                             | 1.066 g/cm <sup>3</sup> at 25 °C (77 °F) |
| n) Water solubility                             | No data available                        |

- |   |                   |
|---|-------------------|
| o) Partition coefficient: n-octanol/water | No data available |
| p) Auto-ignition temperature              | No data available |
| q) Decomposition temperature              | No data available |
| r) Viscosity                              | No data available |
| s) Explosive properties                   | No data available |
| t) Oxidizing properties                   | No data available |

## 9.2 Other safety information

No data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

Contains the following stabiliser(s):

Mequinol ( $\geq 180$  -  $\leq 220$  ppm)

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Exposure to light. May polymerize on exposure to light.

### 10.5 Incompatible materials

Strong oxidizing agents, Acids and bases

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Methyloxirane)

NTP: Reasonably anticipated to be a human carcinogen (Methyloxirane)  
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  
No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence  
Stomach - Irregularities - Based on Human Evidence (2-Methylpropenoic acid)  
Stomach - Irregularities - Based on Human Evidence (Methyloxirane)  
Stomach - Irregularities - Based on Human Evidence (Mequinol)

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Other adverse effects**

No data available

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION****SARA 302 Components**

The following components are subject to reporting levels established by SARA Title III, Section 302:

|               | CAS-No. | Revision Date |
|---------------|---------|---------------|
| Methyloxirane | 75-56-9 | 2008-11-03    |

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

|               | CAS-No. | Revision Date |
|---------------|---------|---------------|
| Methyloxirane | 75-56-9 | 2008-11-03    |

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

|                        | CAS-No. | Revision Date |
|------------------------|---------|---------------|
| 2-Methylpropenoic acid | 79-41-4 | 1994-04-01    |
| Methyloxirane          | 75-56-9 | 2008-11-03    |

**Pennsylvania Right To Know Components**

|   | CAS-No.    | Revision Date |
|---|------------|---------------|
| methacrylic acid, monoester with propane-1,2-diol | 27813-02-1 |               |
| 2-Methylpropenoic acid                            | 79-41-4    | 1994-04-01    |
| Methyloxirane                                     | 75-56-9    | 2008-11-03    |

**New Jersey Right To Know Components**

|   | CAS-No.    | Revision Date |
|---|------------|---------------|
| methacrylic acid, monoester with propane-1,2-diol | 27813-02-1 |               |
| 2-Methylpropenoic acid                            | 79-41-4    | 1994-04-01    |
| Methyloxirane                                     | 75-56-9    | 2008-11-03    |

**California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause cancer.

|               | CAS-No. | Revision Date |
|---------------|---------|---------------|
| Methyloxirane | 75-56-9 | 2007-09-28    |

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**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

|               |  |
|---------------|--|
| Acute Tox.    | Acute toxicity                               |
| Aquatic Acute | Acute aquatic toxicity                       |
| Carc.         | Carcinogenicity                              |
| Eye Dam.      | Serious eye damage                           |
| Eye Irrit.    | Eye irritation                               |
| Flam. Liq.    | Flammable liquids                            |
| H224          | Extremely flammable liquid and vapour.       |
| H227          | Combustible liquid.                          |
| H302 + H312   | Harmful if swallowed or in contact with skin |
| H302 + H332   | Harmful if swallowed or if inhaled           |
| H311          | Toxic in contact with skin.                  |
| H314          | Causes severe skin burns and eye damage.     |
| H315          | Causes skin irritation.                      |
| H317          | May cause an allergic skin reaction.         |
| H318          | Causes serious eye damage.                   |
| H319          | Causes serious eye irritation.               |
| H331          | Toxic if inhaled.                            |
| H335          | May cause respiratory irritation.            |



|             |  |
|-------------|--|
| H340        | May cause genetic defects.                       |
| H350        | May cause cancer.                                |
| H351        | Suspected of causing cancer.                     |
| H402        | Harmful to aquatic life.                         |
| Muta.       | Germ cell mutagenicity                           |
| Skin Corr.  | Skin corrosion                                   |
| Skin Irrit. | Skin irritation                                  |
| Skin Sens.  | Skin sensitisation                               |
| STOT SE     | Specific target organ toxicity - single exposure |

#### HMIS Rating

|                        |   |
|------------------------|---|
| Health hazard:         | 3 |
| Chronic Health Hazard: | * |
| Flammability:          | 1 |
| Physical Hazard        | 0 |

#### NFPA Rating

|                    |   |
|--------------------|---|
| Health hazard:     | 3 |
| Fire Hazard:       | 1 |
| Reactivity Hazard: | 0 |

#### 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 Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

#### Preparation Information

Sigma-Aldrich Corporation  
Product Safety – Americas Region  
1-800-521-8956

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