

## SAFETY DATA SHEET

Version 4.7  
Revision Date 05/24/2016  
Print Date 11/10/2018

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1. PRODUCT AND COMPANY IDENTIFICATION

## 1.1 Product identifiers

Product name : Isobutyl acrylate

Product Number : 436305  
Brand : Aldrich  
Index-No. : 607-115-00-0

CAS-No. : 106-63-8

## 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)**

Flammable liquids (Category 3), H226  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312  
Skin irritation (Category 2), H315  
Skin sensitisation (Category 1), H317  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Acute aquatic toxicity (Category 2), H401  
Chronic aquatic toxicity (Category 3), H412

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

Warning

Hazard statement(s)

|             |                                            |
|-------------|--------------------------------------------|
| H226        | Flammable liquid and vapour.               |
| H312 + H332 | Harmful in contact with skin or if inhaled |
| H315        | Causes skin irritation.                    |
| H317        | May cause an allergic skin reaction.       |
| H335        | May cause respiratory irritation.          |
| H401        | Toxic to aquatic life.                     |

|                            |                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H412                       | Harmful to aquatic life with long lasting effects.                                                                                                             |
| Precautionary statement(s) |                                                                                                                                                                |
| P210                       | Keep away from heat/sparks/open flames/hot surfaces. No smoking.                                                                                               |
| P233                       | Keep container tightly closed.                                                                                                                                 |
| P240                       | Ground/bond container and receiving equipment.                                                                                                                 |
| P241                       | Use explosion-proof electrical/ ventilating/ lighting/ equipment.                                                                                              |
| P242                       | Use only non-sparking tools.                                                                                                                                   |
| P243                       | Take precautionary measures against static discharge.                                                                                                          |
| P261                       | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.                                                                                                         |
| P264                       | Wash skin thoroughly after handling.                                                                                                                           |
| P271                       | Use only outdoors or in a well-ventilated area.                                                                                                                |
| P272                       | Contaminated work clothing should not be allowed out of the workplace.                                                                                         |
| P273                       | Avoid release to the environment.                                                                                                                              |
| P280                       | Wear protective gloves/ eye protection/ face protection.                                                                                                       |
| P303 + P361 + P353         | IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.                                                   |
| P304 + P340 + P312         | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P333 + P313                | If skin irritation or rash occurs: Get medical advice/ attention.                                                                                              |
| P362                       | Take off contaminated clothing and wash before reuse.                                                                                                          |
| P370 + P378                | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.                                                                          |
| P403 + P233                | Store in a well-ventilated place. Keep container tightly closed.                                                                                               |
| P403 + P235                | Store in a well-ventilated place. Keep cool.                                                                                                                   |
| 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

### 3.1 Substances

|                  |                                                 |
|------------------|-------------------------------------------------|
| Formula          | : C <sub>7</sub> H <sub>12</sub> O <sub>2</sub> |
| Molecular weight | : 128.17 g/mol                                  |
| CAS-No.          | : 106-63-8                                      |
| EC-No.           | : 203-417-8                                     |
| Index-No.        | : 607-115-00-0                                  |

#### Hazardous components

| Component                | Classification                                                                                                                                                         | Concentration |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Isobutyl acrylate</b> |                                                                                                                                                                        |               |
|                          | Flam. Liq. 3; Acute Tox. 4;<br>Skin Irrit. 2; Skin Sens. 1;<br>STOT SE 3; Aquatic Acute 2;<br>Aquatic Chronic 3; H226,<br>H312 + H332, H315, H317,<br>H335, H401, H412 | <= 100 %      |

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**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. 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**

Use water spray to cool unopened containers.

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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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low 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. Discharge into the environment must be avoided.

**6.3 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).

**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.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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.

Storage class (TRGS 510): Flammable liquids

**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

Contains no substances with occupational exposure limit values.

### 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: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

##### Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested:Butoject® (KCL 897 / Aldrich Z677647, 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, Flame retardant antistatic protective clothing., 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. Discharge into the environment must be avoided.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |                    |                                           |
|--------------------|-------------------------------------------|
| a) Appearance      | Form: clear, liquid<br>Colour: colourless |
| b) Odour           | ester-like                                |
| c) Odour Threshold | No data available                         |

|                                                 |                                            |
|-------------------------------------------------|--------------------------------------------|
| d) pH                                           | No data available                          |
| e) Melting point/freezing point                 | Melting point/range: -60.99 °C (-77.78 °F) |
| f) Initial boiling point and boiling range      | 132 °C (270 °F) - lit.                     |
| g) Flash point                                  | 32 °C (90 °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                              | 9.58 hPa (7.19 mmHg) at 25 °C (77 °F)      |
| l) Vapour density                               | No data available                          |
| m) Relative density                             | 0.89 g/cm <sup>3</sup> at 25 °C (77 °F)    |
| n) Water solubility                             | 1.8 g/l at 25 °C (77 °F) - soluble         |
| o) Partition coefficient: n-octanol/water       | log Pow: 2.38 at 25 °C (77 °F)             |
| p) Auto-ignition temperature                    | 350 °C (662 °F) at 1,013 hPa (760 mmHg)    |
| 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

|                 |                            |
|-----------------|----------------------------|
| Surface tension | 24.7 mN/m at 25 °C (77 °F) |
|-----------------|----------------------------|

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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 (>0.001 - <0.002 %)

### 10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents, Aldehydes, Azides

### 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

LD50 Oral - Rat - male and female - 4,895 mg/kg  
(OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 2828 ppm

Dermal: No data available

No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 20 h

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

Ames test

S. typhimurium

Result: negative

OECD Test Guideline 474

Mouse - male and female

Result: negative

#### 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

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: AT2100000

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

Stomach - Irregularities - Based on Human Evidence (Mequinol)

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

|                                                     |                                                                                                        |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | flow-through test LC50 - Pimephales promelas (fathead minnow) - 2.09 mg/l - 96 h                       |
| Toxicity to daphnia and other aquatic invertebrates | static test EC50 - Daphnia magna (Water flea) - 19.8 mg/l - 48 h (Directive 67/548/EEC, Annex V, C.2.) |
| Toxicity to algae                                   | static test EC50 - Desmodesmus subspicatus (green algae) - 5.28 mg/l - 72 h (OECD Test Guideline 201)  |
| Toxicity to bacteria                                | Respiration inhibition EC50 - Sludge Treatment - > 1,000 mg/l - 30 min (OECD Test Guideline 209)       |

### 12.2 Persistence and degradability

|                  |                                                                           |
|------------------|---------------------------------------------------------------------------|
| Biodegradability | aerobic - Exposure time 28 d<br>Result: 80 - 90 % - Readily biodegradable |
|------------------|---------------------------------------------------------------------------|

### 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

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life.

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. 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.

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## 14. TRANSPORT INFORMATION

#### DOT (US)

UN number: 2527      Class: 3      Packing group: III  
Proper shipping name: Isobutyl acrylate, stabilized  
Reportable Quantity (RQ):

Poison Inhalation Hazard: No

#### IMDG

UN number: 2527      Class: 3      Packing group: III      EMS-No: F-E, S-D  
Proper shipping name: ISOBUTYL ACRYLATE, STABILIZED

#### IATA

UN number: 2527      Class: 3      Packing group: III  
Proper shipping name: Isobutyl acrylate, stabilized

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## 15. REGULATORY INFORMATION

#### SARA 302 Components

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

**SARA 313 Components**

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**

|                   | CAS-No.  | Revision Date |
|-------------------|----------|---------------|
| Isobutyl acrylate | 106-63-8 | 1993-04-24    |

**Pennsylvania Right To Know Components**

|                   | CAS-No.  | Revision Date |
|-------------------|----------|---------------|
| Isobutyl acrylate | 106-63-8 | 1993-04-24    |

**New Jersey Right To Know Components**

|                   | CAS-No.  | Revision Date |
|-------------------|----------|---------------|
| Isobutyl acrylate | 106-63-8 | 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****Full text of H-Statements referred to under sections 2 and 3.**

|                 |                                                    |
|-----------------|----------------------------------------------------|
| Acute Tox.      | Acute toxicity                                     |
| Aquatic Acute   | Acute aquatic toxicity                             |
| Aquatic Chronic | Chronic aquatic toxicity                           |
| Flam. Liq.      | Flammable liquids                                  |
| H226            | Flammable liquid and vapour.                       |
| H312            | Harmful in contact with skin.                      |
| H312 + H332     | Harmful in contact with skin or if inhaled         |
| H315            | Causes skin irritation.                            |
| H317            | May cause an allergic skin reaction.               |
| H332            | Harmful if inhaled.                                |
| H335            | May cause respiratory irritation.                  |
| H401            | Toxic to aquatic life.                             |
| H412            | Harmful to aquatic life with long lasting effects. |
| Skin Irrit.     | Skin irritation                                    |
| Skin Sens.      | Skin sensitisation                                 |
| STOT SE         | Specific target organ toxicity - single exposure   |

**HMIS Rating**

|                        |   |
|------------------------|---|
| Health hazard:         | 2 |
| Chronic Health Hazard: |   |
| Flammability:          | 3 |
| Physical Hazard        | 0 |

**NFPA Rating**

|                    |   |
|--------------------|---|
| Health hazard:     | 2 |
| Fire Hazard:       | 3 |
| Reactivity Hazard: | 0 |

**Further information**

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**Preparation Information**

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

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