SAFETY DATA SHEET

Version 5.9 Revision Date 01/10/2018 Print Date 10/19/2018

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : 2-Isocyanatoethyl methacrylate

Product Number : 477060 Brand : Aldrich

CAS-No. : 30674-80-7

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)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 1), H330

Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319

Respiratory sensitisation (Category 1), H334

Skin sensitisation (Category 1), H317

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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)

H302 Harmful if swallowed. H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Aldrich - 477060 Page 1 of 8

Precautionary statement(s) P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/ eye protection/ face protection. P284 Wear respiratory protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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/doctor. Specific treatment is urgent (see supplemental first aid instructions on P320 this label). P330 Rinse mouth. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. P362 Store in a well-ventilated place. Keep container tightly closed. P403 + P233 P405 Store locked up.

Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS Lachrymator.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

P501

Formula : C₇H₉NO₃

Molecular weight : 155.15 g/mol
CAS-No. : 30674-80-7

EC-No. : 250-284-7

Hazardous components

Component	Classification	Concentration
2-isocyanatoethyl methacrylate		
	Acute Tox. 4; Acute Tox. 1; Skin Irrit. 2; Eye Irrit. 2A; Resp. Sens. 1; Skin Sens. 1; STOT SE 3; H302, H315, H317, H319, H330, H334, H335	90 - 100 %
2-Chloroethyl methacrylate		
	Acute Tox. 3; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3; H301 + H331, H318, H412	1 - 5 %
2-Isocyanatoethyl 3-chloro-2-methylpropionate		
Car the full toyt of the H. Statements mentioned in this Sec	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Resp. Sens. 1; STOT SE 3; Aquatic Acute 3; Aquatic Chronic 3; H302, H315, H319, H334, H335, H412	1 - 5 %

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

Aldrich - 477060 Page 2 of 8

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

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

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. Take victim immediately to hospital. Consult a physician.

In case of eye contact

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

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

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. 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.

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.

Aldrich - 477060 Page 3 of 8

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

Store under inert gas. Moisture sensitive. Heat sensitive.

Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

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

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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquidb) Odour pungent

c) Odour Threshold No data availabled) pH No data available

e) Melting point/freezing Melting point/range: -45 °C (-49 °F) - lit. point

f) Initial boiling point and boiling range

211 °C (412 °F) - lit.

g) Flash point 97 °C

97 °C (207 °F) - closed cup

h) Evaporation rate No data availablei) Flammability (solid, gas) No data available

Aldrich - 477060 Page 4 of 8

j) Upper/lower No data available flammability or

explosive limits

k) Vapour pressure No data availablel) Vapour density No data available

m) Relative density 1.098 g/mL at 25 $^{\circ}$ C (77 $^{\circ}$ F)

n) Water solubility No data available
 o) Partition coefficient: n- No data available octanol/water

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

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

Contains the following stabiliser(s):

BHT (<0.1 %)

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Exposure to moisture Heat

10.5 Incompatible materials

Strong bases, Alcohols, Amines

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen cyanide (hydrocyanic acid)

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 670 mg/kg

LC50 Inhalation - Rat - 6 h - 4 ppm

LC50 Inhalation - Rat - 1 h - 0.15 mg/l

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Aldrich - 477060 Page 5 of 8

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation 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.

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 on OSHA's

list of regulated carcinogens.

Reproductive toxicity

No data available

Reproductive toxicity - Rat - male - Inhalation

Effects on Fertility: Pre-implantation mortality (e.g., reduction in numbe corpora lutea).

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: OZ4950000

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

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

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.

Aldrich - 477060 Page 6 of 8

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2206 Class: 6.1 Packing group: III

Proper shipping name: Isocyanates, toxic, n.o.s. (2-isocyanatoethyl methacrylate)

Reportable Quantity (RQ): Poison Inhalation Hazard: No

IMDG

UN number: 2206 Class: 6.1 Packing group: III EMS-No: F-A, S-A

Proper shipping name: ISOCYANATES, TOXIC, N.O.S. (2-isocyanatoethyl methacrylate)

IATA

UN number: 2206 Class: 6.1 Packing group: III

Proper shipping name: Isocyanates, toxic, n.o.s. (2-isocyanatoethyl methacrylate)

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 30674-80-7 2008-11-03

SARA 313 Components

2-isocyanatoethyl methacrylate

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.

Massachusetts Right To Know Components

2-isocyanatoethyl methacrylate CAS-No. Revision Date 30674-80-7 2008-11-03

Pennsylvania Right To Know Components

2-isocyanatoethyl methacrylate CAS-No. Revision Date 30674-80-7 2008-11-03

CAS-No. Revision Date 2-isocyanatoethyl methacrylate 30674-80-7 2008-11-03

New Jersey Right To Know Components

2-isocyanatoethyl methacrylate CAS-No. Revision Date 2008-11-03 Revisio

2-Chloroethyl methacrylate 1888-94-4
2-Isocyanatoethyl 3-chloro-2-methylpropionate 86366-55-4

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

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
Eye Dam. Acute aquatic toxicity
Chronic aquatic toxicity
Serious eye damage

Eye Irrit. Eye irritation

H301 + H331 Toxic if swallowed or if inhaled.

H302 Harmful if swallowed. H315 Causes skin irritation.

Aldrich - 477060 Page 7 of 8

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

Resp. Sens. Respiratory sensitisation

Skin Irrit. Skin irritation
Skin Sens. Skin sensitisation

STOT SE Specific target organ toxicity - single exposure

HMIS Rating

Health hazard: 4
Chronic Health Hazard: *
Flammability: 1
Physical Hazard 0

NFPA Rating

Health hazard: 4
Fire Hazard: 1
Reactivity Hazard: 0

Further information

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Preparation Information

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

Version: 5.9 Revision Date: 01/10/2018 Print Date: 10/19/2018

Aldrich - 477060 Page 8 of 8