



**SECTION 1: Identification**

**1.1. Identification**

Product name : ALLYL ACRYLATE  
 Product code : ENEAA0020  
 Product form : Substance  
 Physical state : Liquid  
 Formula : C6H8O2  
 Synonyms : 3-ACRLOXYPROPENE  
                   2-PROPENYL ACRYLATE  
                   ACRYLIC ACID, ALLYL ESTER  
                   2-PROPENOIC ACID, 2-PROPENYL ESTER  
 Chemical family : ESTER

**1.2. Recommended use and restrictions on use**

Recommended use : Chemical intermediate

**1.3. Supplier**

**GELEST, INC.**  
 11 East Steel Road  
 Morrisville, PA 19067  
**USA**  
 T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST  
[info@gelest.com](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

**1.4. Emergency telephone number**

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

**SECTION 2: Hazard(s) identification**

**2.1. Classification of the substance or mixture**

**GHS-US classification**

Flammable liquids Category 3	H226	Flammable liquid and vapour
Acute toxicity (oral) Category 3	H301	Toxic if swallowed
Acute toxicity (dermal) Category 3	H311	Toxic in contact with skin
Acute toxicity (inhalation:vapor) Category 2	H330	Fatal if inhaled
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Hazardous to the aquatic environment - Acute Hazard Category 1	H400	Very toxic to aquatic life

Full text of H statements : see section 16

**2.2. GHS Label elements, including precautionary statements**

**GHS-US labeling**

Hazard pictograms (GHS-US) :

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :

- H226 - Flammable liquid and vapour
- H301+H311 - Toxic if swallowed or in contact with skin
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H330 - Fatal if inhaled
- H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) :

- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P284 - [In case of inadequate ventilation] wear respiratory protection.

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P310 - Immediately call a doctor  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. heat, open flames, sparks  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical equipment  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe vapors.  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P330 - Rinse mouth.  
P301+P310 - If swallowed: Immediately call a doctor  
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep 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  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P312 - Call a doctor if you feel unwell  
P320 - Specific treatment is urgent (see first aid instructions on this label)  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.  
P370+P378 - In case of fire: Use water spray or fog, foam, carbon dioxide, dry chemical to extinguish.  
P391 - Collect spillage.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 - Keep in a cool place  
P405 - Store locked up.  
P501 - Dispose of contents/container to licensed waste disposal facility.

### 2.3. Hazards not otherwise classified (HNOC)

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Mono-constituent  
Name : ALLYL ACRYLATE  
CAS-No. : 999-55-3

Name	Product identifier	%	GHS-US classification
Allyl acrylate	(CAS-No.) 999-55-3	95 - 100	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute 1, H400

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

First-aid measures after skin contact : Wash with plenty of soap and water. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Immediately call a poison center or doctor/physician.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Fatal if inhaled. May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Toxic in contact with skin. Causes skin irritation. May cause sensitization. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

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Symptoms/effects after eye contact	: Lachrymator. Causes serious eye irritation.
Symptoms/effects after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Explosion hazard : May form flammable/explosive vapor-air mixture.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate ignition sources. Use special care to avoid static electric charges.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters. Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Collect spillage. Clean up any spills as soon as possible, using an absorbent material to collect it. Use only non-sparking tools.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Material should be handled in a laboratory hood whenever possible. Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.

Storage conditions : Keep container tightly closed. Store in sealed containers, below 25°C. Store < 5°C. Avoid exposure to light. Store locked up.

Incompatible materials : Oxidizing agent.

Storage area : Store in a well-ventilated place. Store away from heat.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

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### 8.2. Appropriate engineering controls

Appropriate engineering controls : Handle in an enclosing hood with exhaust ventilation. Provide local exhaust or general room ventilation.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Hand protection:

Neoprene or nitrile rubber gloves

#### Eye protection:

Chemical goggles. Contact lenses should not be worn

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Wear respiratory protection. NIOSH-certified full face organic vapor (black cartridge) respirator.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Molecular mass	: 112.13 g/mol
Color	: No data available
Odor	: Acrid. Mildly lachrymatory.
Odor threshold	: No data available
Refractive index	: 1.436
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: ~ 1
Melting point	: No data available
Freezing point	: < 0 °C
Boiling point	: 46 - 47 °C @ 40 mm Hg
Flash point	: 32 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour
Vapor pressure	: < 10 mm Hg @ 20 °C
Relative vapor density at 20 °C	: > 1
Relative density	: 0.935
% Volatiles	: < 3 %
Solubility	: Slightly. Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Unstable.

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### 10.3. Possibility of hazardous reactions

May occur if heated in the presence of radical initiators or exposure to ultraviolet light.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Organic acid vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

ALLYL ACRYLATE (999-55-3)	
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (vapors)	0.5 mg/l/4h
Allyl acrylate (999-55-3)	
LC50 inhalation rat (ppm)	152 ppm/4h
LDLo oral rat	500 mg/kg
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	152 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: Fatal if inhaled. May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Toxic in contact with skin. Causes skin irritation. May cause sensitization. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/effects after eye contact	: Lachrymator. Causes serious eye irritation.
Symptoms/effects after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

Effect on the ozone layer : No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

- Product/Packaging disposal recommendations : Incinerate. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
- Additional information : Handle empty containers with care because residual vapors are flammable.
- Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

#### 14.1. UN number

- UN-No.(DOT) : 2929
- DOT NA no. : UN2929

#### 14.2. UN proper shipping name

- Transport document description : UN2929 Toxic liquids, flammable, organic, n.o.s. (ALLYL ACRYLATE), 6.1 (3), II
- Proper Shipping Name (DOT) : Toxic liquids, flammable, organic, n.o.s.  
(ALLYL ACRYLATE)
- Class (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
- Packing group (DOT) : II - Medium Danger
- Hazard labels (DOT) : 6.1 - Poison  
3 - Flammable liquid



- Dangerous for the environment : Yes
- Marine pollutant : Yes



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
- DOT Packaging Bulk (49 CFR 173.xxx) : 243
- DOT Packaging Exceptions (49 CFR 173.xxx) : 153
- DOT Symbols : G - Identifies PSN requiring a technical name

#### 14.3. Additional information

- Emergency Response Guide (ERG) Number : 131
- Other information : No supplementary information available.

#### Transport by sea

- DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
- DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

#### Air transport

- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Allyl acrylate (999-55-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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### 15.2. International regulations

#### CANADA

##### Allyl acrylate (999-55-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### EU-Regulations

##### Allyl acrylate (999-55-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### National regulations

##### Allyl acrylate (999-55-3)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

Full text of H-phrases::

H226	Flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H400	Very toxic to aquatic life

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

### Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

Date of issue: 08/18/2017 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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