



ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet ENEA0254

Date of issue: 08/20/2015

Revision date: 06/30/2017

Version: 2.0

SECTION 1: Identification

1.1. Product identifier

Product name : ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)
 Product code : ENEA0254
 Product form : Substance
 Physical state : Liquid
 Synonyms : ALLYL ALCOHOL ETHOXYLATE
 POLYETHYLENE OXIDE MONOALLYL ETHER
 POLYETHYLENE GLYCOL MONOALLYL ETHER
 Chemical family : POLYETHER

1.2. Recommended use of the chemical and restrictions on use

Recommended use : Chemical intermediate
 For research and industrial use only

1.3. Details of the supplier of the safety data sheet

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 - 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

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent
 Name : ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)
 CAS No : 27274-31-3

Name	Product identifier	%	GHS-US classification
Polyethylene oxide monoallyl ether	(CAS No) 27274-31-3	97 - 100	Not classified
Allyl alcohol	(CAS No) 107-18-6	< 0.1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 1 (Inhalation:vapour), H330 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400

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

3.2. Mixtures

Not applicable

ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet

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. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash with plenty of soap and water. Get medical advice/attention.
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. Get medical advice/attention.

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

Symptoms/effects after inhalation	: May be irritating to the respiratory system.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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

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

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or 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	: Clean up any spills as soon as possible, using an absorbent material to collect it.

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

Precautions for safe handling	: Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors.
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

Storage conditions	: Keep container tightly closed.
Incompatible materials	: Oxidizing agent.
Storage area	: Store in a well-ventilated place. Store away from heat.

ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Allyl alcohol (107-18-6)		
ACGIH	ACGIH TWA (ppm)	0.5 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	2 ppm
IDLH	US IDLH (ppm)	20 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	2 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	10 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	4 ppm

8.2. Exposure controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation.
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	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified 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. Viscous.
Molecular mass	: ~ 250 g/mol
Color	: Pale yellow.
Odor	: No data available
Odor threshold	: No data available
Refractive index	: 1.458
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: -30 °C
Boiling point	: > 205 °C
Flash point	: > 150 °C
Auto-ignition temperature	: 265 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 0.01 mm Hg @ 20°C
Relative vapor density at 20 °C	: No data available
Relative density	: 1.059
VOC content	: < 3 %
Solubility	: Insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 15 - 25 cSt
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

No additional information available

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 alcohol (107-18-6)	
LD50 oral rat	64 mg/kg
LD50 oral mouse	96 mg/kg
LD50 dermal rabbit	89 mg/kg
LC50 inhalation rat (mg/l)	0.391 mg/l/4h
ATE US (oral)	64 mg/kg body weight
ATE US (dermal)	89 mg/kg body weight
ATE US (vapors)	0.391 mg/l/4h
ATE US (dust, mist)	0.391 mg/l/4h

Polyethylene oxide monoallyl ether (27274-31-3)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

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 : May be irritating to the respiratory system.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Allyl alcohol (107-18-6)	
LC50 fish 1	0.28 - 0.37 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	0.32 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

12.2. Persistence and degradability

No additional information available

ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet

12.3. Bioaccumulative potential

Allyl alcohol (107-18-6)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	0.17

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 ozone layer	: No additional information available
Effect on the global warming	: No known effects from this product.
GWPmix comment	: No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations	: Incinerate. Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport.

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Allyl alcohol (107-18-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the United States SARA Section 302	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 302 Threshold Planning Quantity (TPQ)	1000
SARA Section 313 - Emission Reporting	1 %

Polyethylene oxide monoallyl ether (27274-31-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

Allyl alcohol (107-18-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Polyethylene oxide monoallyl ether (27274-31-3)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet

Allyl alcohol (107-18-6)

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

National regulations

Allyl alcohol (107-18-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Polyethylene oxide monoallyl ether (27274-31-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

Allyl alcohol (107-18-6)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases::

H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H310	Fatal in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
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.

HMIS III Rating

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

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Date of issue: 08/20/2015 Revision date: 06/30/2017 Version: 2.0

SDS US (GHS HazCom 2012) - Custom

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

Print date: 06/30/2017

EN (English US)

SDS ID: ENEA0254

6/7

ALLYLOXY(POLYETHYLENE OXIDE) (4-7 EO)

Safety Data Sheet

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

© 2017 Gelest Inc. Morrisville, PA 19067

