

Material Safety Data Sheet

Allyl glycidyl ether, 99+ %

ACC# 36311

Section 1 - Chemical Product and Company Identification

MSDS Name: Allyl glycidyl ether, 99+ %

Catalog Numbers: AC102940000, AC102941000, AC102945000

Synonyms: 1-Allyloxy-2,3-epoxypropane; AGE; Allyl 2,3-epoxypropyl ether; Allylglycidether; 1,2-Epoxy-3-allyloxypropane; Ether, allyl 2,3-epoxypropyl; Glycidyl allyl ether; Propane, 1-(allyloxy)-2,3-epoxy-; ((Propenyloxy)methyl) oxirane.

Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
106-92-3	Allyl glycidyl ether	> 99	203-442-4

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 48 deg C.

Warning! Causes severe eye irritation and possible eye injury. **Flammable liquid and vapor.** Harmful if inhaled. Causes skin and respiratory tract irritation. May cause allergic skin reaction. May be harmful if absorbed through the skin. May be harmful if swallowed. May cause central nervous system depression. Material should be stored below -20°C (-4°F).

Target Organs: Central nervous system, skin.

Potential Health Effects

Eye: Causes severe eye irritation. May cause reversible inflammation and corneal injury with opacity. Vapors may also cause corneal opacity.

Skin: Causes severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through the skin.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. May cause central nervous system depression.

Inhalation: Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation at high concentrations may cause CNS depression and asphyxiation. Harmful if inhaled.

Chronic: Repeated exposure may cause sensitization dermatitis.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Containers may explode when heated. Runoff from fire control or dilution water may cause pollution. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media: Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water. In case of fire, use carbon dioxide, dry chemical powder or appropriate foam.

Flash Point: 48 deg C (118.40 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 2; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Use and store under nitrogen. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Do not breathe vapor.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Deep freeze (below -20°C).

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Allyl glycidyl ether	1 ppm TWA	5 ppm TWA; 22 mg/m ³ TWA 50 ppm IDLH	10 ppm Ceiling; 45 mg/m ³ Ceiling

OSHA Vacated PELs: Allyl glycidyl ether: 5 ppm TWA; 22 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear chemical splash goggles and face shield.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: clear, colorless

Odor: characteristic odor - pleasant odor

pH: Not available.

Vapor Pressure: 4.7 mm Hg @ 25 deg C

Vapor Density: 3.32 @ 25°C

Evaporation Rate:Not available.

Viscosity: Not available.

Boiling Point: 154 deg C @ 760 mmHg

Freezing/Melting Point:(forms glass) -100 deg C

Decomposition Temperature:Not available.

Solubility: 14.1% in water slightly soluble

Specific Gravity/Density:.9620 g/cm³

Molecular Formula:C₆H₁₀O₂

Molecular Weight:114.14

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Ignition sources, excess heat.

Incompatibilities with Other Materials: Oxidizing agents, acids, bases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acrid smoke and fumes.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 106-92-3: RR0875000

LD50/LC50:

CAS# 106-92-3:

Draize test, rabbit, eye: 97 mg Severe;

Draize test, rabbit, eye: 750 ug/24H Severe;

Draize test, rabbit, skin: 485 mg/3D Moderate;

Draize test, rabbit, skin: 2 mg/24H Severe;

Inhalation, mouse: LC50 = 270 ppm/4H;
Inhalation, rat: LC50 = 670 ppm/8H;
Oral, mouse: LD50 = 390 mg/kg;
Oral, rat: LD50 = 1600 mg/kg;
Skin, rabbit: LD50 = 2550 mg/kg;

Carcinogenicity:

CAS# 106-92-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No information found

Reproductive Effects: See actual entry in RTECS for complete information.

Mutagenicity: Mutagenic effects have occurred in experimental animals.

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. Fish, Goldfish: LD50 = 78 mg/L/24H. (Conditions of bioassay not specified). Fish, Goldfish: LD50 = 30 mg/L/96H. (Conditions of bioassay not specified).

Environmental: No information available.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ALLYL GLYCIDYL ETHER	ALLYL GLYCIDYL ETHER
Hazard Class:	3	3
UN Number:	UN2219	UN2219
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 106-92-3 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 106-92-3 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:

XN

Risk Phrases:

R 10 Flammable.
R 20/22 Harmful by inhalation and if swallowed.
R 37/38 Irritating to respiratory system and skin.
R 40 Limited evidence of a carcinogenic effect.
R 41 Risk of serious damage to eyes.
R 43 May cause sensitization by skin contact.
R 62 Possible risk of impaired fertility.
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 68 Possible risk of irreversible effects.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 106-92-3: 3

Canada - DSL/NDSL

CAS# 106-92-3 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B3, D1B, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 106-92-3 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information
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MSDS Creation Date: 9/02/1997

Revision #7 Date: 10/30/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.