

Material Safety Data Sheet

Allyl alcohol

ACC# 56396

Section 1 - Chemical Product and Company Identification

MSDS Name: Allyl alcohol

Catalog Numbers: AC102860000, AC102860010, AC102860050, AC220260000, AC220260050, AC220261000 AC220261000, AC220265000

Synonyms: 3-Hydroxypropene; Propenol; Propenyl alcohol.

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
107-18-6	Allyl alcohol	99	203-470-7

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 21 deg C.

Danger! May be fatal if inhaled or absorbed through skin. **Flammable liquid and vapor.** Causes eye, skin, and respiratory tract irritation. Harmful if swallowed.

Target Organs: Kidneys, liver, respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes severe eye irritation. Lachrymator (substance which increases the flow of tears).

Skin: Causes skin irritation. May be fatal if absorbed through the skin.

Ingestion: Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation: May be fatal if inhaled. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. May cause pulmonary edema and severe respiratory disturbances. Vapors may cause dizziness or suffocation.

Chronic: May cause liver and kidney damage. Effects may be delayed.

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. Do NOT allow victim to rub eyes or keep eyes closed.

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

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

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. Containers may explode in the heat of a fire. Flammable liquid and vapor. 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: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Flash Point: 21 deg C (69.80 deg F)

Autoignition Temperature: 378 deg C (712.40 deg F)

Explosion Limits, Lower:2.5%

Upper: 18.0%

NFPA Rating: (estimated) Health: 4; Flammability: 3; Instability: 1

Section 6 - Accidental Release Measures

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

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Approach spill from upwind. Use water spray to cool and disperse vapors, protect personnel, and dilute spills to form nonflammable mixtures. Control runoff and isolate discharged material for proper disposal.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Allyl alcohol	0.5 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route	2 ppm TWA; 5 mg/m ³ TWA 20 ppm IDLH	2 ppm TWA; 5 mg/m ³ TWA

OSHA Vacated PELs: Allyl alcohol: 2 ppm TWA; 5 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: clear, colorless

Odor: pungent odor - mustard-like

pH: Not available.

Vapor Pressure: 17 mm Hg @ 20 deg C

Vapor Density: 2.00 (air=1)

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 97 deg C

Freezing/Melting Point: -129 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: 0.85

Molecular Formula: C₃H₆O

Molecular Weight: 58.08

Section 10 - Stability and Reactivity

Chemical Stability: May polymerize.

Conditions to Avoid: Ignition sources, excess heat, confined spaces.

Incompatibilities with Other Materials: Metals, strong oxidizing agents, strong acids, amines, peroxides, polymerization catalysts.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 107-18-6: BA5075000

LD50/LC50:

CAS# 107-18-6:

Draize test, rabbit, eye: 20 mg Severe;
Inhalation, mouse: LC50 = 500 mg/m³/2H;
Inhalation, mouse: LC50 = 500 mg/m³/2H;
Inhalation, rat: LC50 = 76 ppm/8H;
Oral, mouse: LD50 = 96 mg/kg;
Oral, mouse: LD50 = 75 mg/kg;
Oral, rabbit: LD50 = 52 mg/kg;
Oral, rat: LD50 = 64 mg/kg;

Skin, rabbit: LD50 = 45 mg/kg;

Carcinogenicity:

CAS# 107-18-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: Mutation in microorganisms(Salmonella typhimurium)=100 umol/L Mutation in microorganisms(Salmonella typhimurium)=50 ug/plate

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: Fish: Goldfish: LC50 = 1 mg/L; 24 Hr.; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 216-608 mg/L; 5,15,30 Minutes; Microtox test No data available.

Environmental: Residue disappearance and leaching of C-allyl alcohol from different soils was studied in laboratory experiments. Residue disappearance and leaching from soils was correlated negatively to the organic matter content. Migration to groundwater and biodegradation are expected to be the predominant fates of allyl alcohol released to soil. Volatilization and direct photolysis are not expected to be significant. The most likely fate of allyl alcohol is expected to be biodegradation.

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: CAS# 107-18-6: waste number P005.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ALLYL ALCOHOL	ALLYL ALCOHOL
Hazard Class:	6.1	6.1(3)
UN Number:	UN1098	UN1098
Packing Group:	I	I
Additional Info:		FLASHPOINT 21 C

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 107-18-6 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

CAS# 107-18-6: 100 lb final RQ; 45.4 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 107-18-6: 1000 lb TPQ

SARA Codes

CAS # 107-18-6: immediate, delayed, fire.

Section 313

This material contains Allyl alcohol (CAS# 107-18-6, 99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

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:

CAS# 107-18-6 is listed as a Hazardous Substance 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# 107-18-6 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:

T N

Risk Phrases:

R 10 Flammable.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 50 Very toxic to aquatic organisms.

Safety Phrases:

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 107-18-6: 2

Canada - DSL/NDSL

CAS# 107-18-6 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B2, D1A, 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# 107-18-6 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 5/10/1999

Revision #6 Date: 3/01/2005

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.