Material Safety Data Sheet
Allyl chloride

ACC# 58389

Section 1 - Chemical Product and Company Identification

MSDS Name: Allyl chloride
Catalog Numbers: AC102910000, AC102910010, AC102910050, AC216970000, AC216970010, AC216970025 AC216970025, AC216970050, AC216971000, AC216975000
Synonyms: 3-Chloropropene; 3-Chloropropylene; 3-Chloro-1-propene; Chlorallylene.
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
107-05-1	Allyl chloride	>98	203-457-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: -32 deg C.
Danger! Extremely flammable liquid and vapor. Vapor may cause flash fire. Causes eye, skin, and respiratory tract irritation. Harmful if swallowed, inhaled, or absorbed through the skin.
Target Organs: Kidneys, liver, lungs, respiratory system, eyes, skin.

Potential Health Effects
Eye: Contact with eyes may cause severe irritation, and possible eye burns.
Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. Delayed and/or deep-seated pain may result from skin contact. (Dow Chemical)
Ingestion: Harmful if swallowed. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.
Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Excessive exposure may cause peripheral neuropathy (injury to nerves of the extremities). [Dow Chemical]
Chronic: May cause liver and kidney damage. May cause cancer according to animal studies. May cause lung damage.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
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. Use water spray to keep fire-exposed containers cool. Liquid will float and may reignite on the surface of water. Fire or excessive heat may result in violent rupture of the container due to bulk polymerization. Extremely flammable liquid and vapor. Vapor may cause flash fire. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.
Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Flash Point: -32 deg C (-25.60 deg F)
Autoignition Temperature: 392 deg C (737.60 deg F)
Explosion Limits, Lower:2.9%
Upper: 11.1%
NFPA Rating: (estimated) Health: 3; 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. Avoid runoff into storm

sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Provide ventilation. Approach spill from upwind.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. 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. Take precautionary measures against static discharges. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Do not breathe vapor or mist.
Storage: Keep away from sources of ignition. Keep from freezing. Keep container closed when not in use. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Allyl chloride	1 ppm TWA; 2 ppm STEL	1 ppm TWA; 3 mg/m3 TWA 250 ppm IDLH	1 ppm TWA; 3 mg/m3 TWA

OSHA Vacated PELs: Allyl chloride: 1 ppm TWA; 3 mg/m3 TWA
Personal Protective Equipment
Eyes: Wear chemical splash goggles.
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: disagreeable odor - pungent odor - unpleasant odor - garlic-like odor
pH: Not available.
Vapor Pressure: 368 mm Hg @ 25 deg C
Vapor Density: 2.6 (air=1)
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 44-45 deg C
Freezing/Melting Point:-134.5 deg C
Decomposition Temperature: Not available.
Solubility: Slightly soluble.
Specific Gravity/Density:0.938
Molecular Formula:C3H5Cl
Molecular Weight:76.53

Section 10 - Stability and Reactivity

Chemical Stability: This material is a monomer and may polymerize under certain conditions if the stabilizer is lost. Allyl chloride produces HCl upon storage and can similarly undergo hydrolysis in water to form allyl alcohol (poisonous by inhalation in Hazard Zone B) and HCl.
Conditions to Avoid: High temperatures, ignition sources, freezing temperatures.
Incompatibilities with Other Materials: Metals, strong oxidizing agents, strong acids, amines, polymerization catalysts.
Hazardous Decomposition Products: Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide.
Hazardous Polymerization: May occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 107-05-1: UC7350000
LD50/LC50:
CAS# 107-05-1:
Draize test, rabbit, eye: 500 mg Moderate;
Inhalation, mouse: LC50 = 11500 mg/m3/2H;
Inhalation, mouse: LC50 = 6600 mg/m3;
Inhalation, rat: LC50 = 11 gm/m3/2H;
Inhalation, rat: LC50 = 8200 mg/m3;
Oral, mouse: LD50 = 425 mg/kg;
Oral, mouse: LD50 = 500 mg/kg;
Oral, rabbit: LD50 = 300 mg/kg;

Oral, rat: LD50 = 460 mg/kg;
Oral, rat: LD50 = 450 mg/kg;
Skin, rabbit: LD50 = 2066 mg/kg;
.

Carcinogenicity:
CAS# 107-05-1:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** Not listed.
- **NTP:** Not listed.
- **IARC:** Not listed.

Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: No information available.
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: Substance rapidly volatilizes into the atmosphere.
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 CHLORIDE	ALLYL CHLORIDE
Hazard Class:	3	3(6.1)
UN Number:	UN1100	UN1100
Packing Group:	I	I
Additional Info:		FLASHPOINT -29 C

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 107-05-1 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# 107-05-1: 1000 lb final RQ; 454 kg final RQ
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 107-05-1: immediate, delayed, fire.
Section 313
This material contains Allyl chloride (CAS# 107-05-1, >98%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
CAS# 107-05-1 is listed as a hazardous air pollutant (HAP).
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
CAS# 107-05-1 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:

CAS# 107-05-1 is considered highly hazardous by OSHA.

STATE

CAS# 107-05-1 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 F N

Risk Phrases:

R 11 Highly flammable.
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 40 Limited evidence of a carcinogenic effect.
R 50 Very toxic to aquatic organisms.
R 48/20 Harmful : danger of serious damage to health by prolonged exposure through inhalation.
R 68 Possible risk of irreversible effects.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.
S 25 Avoid contact with eyes.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37 Wear suitable protective clothing and gloves.
S 46 If swallowed, seek medical advice immediately and show this con tainer or label.
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 107-05-1: 2

Canada - DSL/NDSL

CAS# 107-05-1 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B2, 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# 107-05-1 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 8/27/1998
Revision #6 Date: 2/22/2005