Material Safety Data Sheet
Allyl alcohol

ACC# 56396

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Allyl alcohol
**Catalog Numbers:** AC102860000, AC102860010, AC102860050, AC102862500, AC220260000, AC220260050, AC220260050, AC220261000, AC220265000
**Synonyms:** 2-Propen-1-ol.
**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

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-18-6</td>
<td>Allyl alcohol</td>
<td>99</td>
<td>203-470-7</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: APHA: 15 max liquid. Flash Point: 21 deg C.

**Danger!** Toxic if swallowed, inhaled or absorbed through the skin. Flammable liquid and vapor. Causes eye, skin, and respiratory tract irritation. Lachrymator (substance which increases the flow of tears). Very toxic to aquatic organisms.

**Target Organs:** Blood, kidneys, central nervous system, liver, respiratory system, eyes, skin.

**Potential Health Effects**

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

**Skin:** Causes skin irritation. Toxic in contact with skin.

**Ingestion:** May cause irritation of the digestive tract. Poison by ingestion. May cause nausea and vomiting.

**Inhalation:** Causes respiratory tract irritation. Toxic if inhaled.

**Chronic:** May cause liver and kidney damage. Laboratory experiments have resulted in mutagenic effects. Chronic exposure may cause blood effects. Exposure to high concentrations may cause central nervous system depression.

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.

**Ingestion:** POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. 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.

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**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. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. Flammable liquid and vapor.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** 21 deg C (69.80 deg F)

**Autoignition Temperature:** 375 deg C (707.00 deg F)

**Explosion Limits, Lower:** 2.5 vol %

**Upper:** 18 vol %

**NFPA Rating:** (estimated) Health: 3; Flammability: 3; Instability: 0

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**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. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Evacuate unnecessary personnel. Do not let this chemical enter the environment.

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**Section 7 - Handling and Storage**

**Handling:** Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.

**Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Store under nitrogen.

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**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 only under a chemical fume hood.

**Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allyl alcohol</td>
<td>0.5 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route</td>
<td>2 ppm TWA; 5 mg/m³ TWA</td>
<td>2 ppm TWA; 5 mg/m³ TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 ppm IDLH</td>
<td></td>
</tr>
</tbody>
</table>

**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 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 - APHA: 15 max

**Odor:** pungent odor - mustard-like

**pH:** Not available.

**Vapor Pressure:** 17.3 mm Hg @ 20 deg C

**Vapor Density:** 2.00 (air=1)

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 96 - 98 deg C @ 760 mmHg

**Freezing/Melting Point:** -129 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Miscible.

**Specific Gravity/Density:** 0.850

**Molecular Formula:** C₃H₆O

**Molecular Weight:** 58.08

**Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, acids, alkali metals.

**Hazardous Decomposition Products:** Carbon monoxide, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported
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: Mutagenic effects have occurred in experimental animals.
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: Do not empty into drains.

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 U-Series: None listed.
Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
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<tbody>
<tr>
<td>Shipping Name:</td>
<td>ALLYL ALCOHOL</td>
<td>ALLYL ALCOHOL</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>6.1</td>
<td>6.1(3)</td>
</tr>
<tr>
<td>UN Number:</td>
<td>UN1098</td>
<td>UN1098</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Additional Info:</td>
<td>FLASHPOINT 21 C</td>
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</tr>
</tbody>
</table>

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 depletors.
- This material does not contain any Class 2 Ozone depletors.

**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 #8 Date: 4/04/2008

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.