



### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	:	Allyl alcohol
REACH No.	:	The exemption from registration, tonnage falling below the registration threshold, or the anticipation of registration at a later deadline applies to this substance or its intended uses.
CAS-No.	:	107-18-6
Index-No.	:	CH-L6-A007

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	:	Laboratory chemicals, Manufacture of substances
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#### 1.3 Details of the supplier of the safety data sheet

Company	VALERIAN LABS HOLDING CORP
Address	1130-1971 BROADWAY STREETPORT COQUITLAM, BC V3C 0C9 CANADA
Telephone	+1 (604)-710-0869
E-mail:	<a href="mailto:info@valerianlabs.com">info@valerianlabs.com</a>

#### 1.4 Emergency telephone

<b>Number:</b>	1-888-226-8832 CANUTEC (CANADA) 1-800-424-9300 CHEMTREC (USA)
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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### In accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Flammable liquids (Category 2), H225  
Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Inhalation (Category 3), H331  
Acute toxicity, Dermal (Category 2), H310  
Skin irritation (Category 2), H315





Eye irritation (Category 2), H319  
Reproductive toxicity (Category 2), H361fd  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Short-term (acute) aquatic hazard (Category 1), H400  
Long-term (chronic) aquatic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling In accordance with GHS Standards

Pictogram



Signal Word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.  
H301 + H331 Toxic if swallowed or if inhaled.  
H310 Fatal in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

Supplemental Hazard Statements

none

### Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard statement(s)

H310 Fatal in contact with skin.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H301 + H331 Toxic if swallowed or if inhaled.





### Precautionary statement(s)

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

Supplemental Hazard Statements none

### 2.3 Other hazards

This substance or combination of substances does not contain any elements that meet the criteria for being classified as either persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

Regarding its impact on the environment, there are no components within the substance/mixture that are identified as having endocrine-disrupting properties, as outlined in REACH Article 57(f), Commission Delegated Regulation (EU) 2017/2100, or Commission Regulation (EU) 2018/605, at levels exceeding 0.1%.

From a toxicological standpoint, the substance/mixture does not consist of components recognized as having endocrine-disrupting properties under REACH Article 57(f), Commission Delegated Regulation (EU) 2017/2100, or Commission Regulation (EU) 2018/605 at concentrations of 0.1% or higher.

Additionally, it's important to note that this substance/mixture functions as both a photosensitizer and a lachrymator.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : 2-Propen-1-ol  
Formula : C<sub>3</sub>H<sub>6</sub>O  
Molecular weight : 58,08 g/mol  
CAS-No. : 107-18-6  
EC-No. : 203-470-7  
Index-No. : CH-L6-A007

Component	Classification	Concentration
<b>allyl alcohol</b>		
CAS-No. 107-18-6 EC-No. 203-470-7 Index-No. CH-L6-A007	Flam. Liq. 2; Acute Tox. 3; Acute Tox. 2; Skin Irrit. 2; Eye Irrit. 2; Repr. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 3; H225, H301, H331, H310, H315, H319, H361fd, H335, H400, H412 M-Factor - Aquatic Acute: 1	<= 100 %





### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

##### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

##### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

##### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

##### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

##### If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder

##### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

#### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.





### 5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6: Accidental release measures

### 6.1 Personal Precautions, Protective Equipment, and Emergency Procedures:

#### 6.2 Advice for non-emergency personnel:

- Refrain from inhaling vapors or aerosols and avoid direct contact with the substance. Ensure proper ventilation, and keep away from heat and potential ignition sources.
- In the event of an emergency, evacuate the area, follow emergency protocols, and seek guidance from an expert. Refer to Section 8 for personal protective equipment recommendations.

#### 6.2 Environmental Precautions:

- Prevent the product from entering drainage systems, as there is a risk of explosion.

### 6.3 Methods and Materials for Containment and Cleanup:

- Cover drains to prevent entry of the substance. Collect, bind, and safely pump up any spills. Adhere to any applicable material handling restrictions. Dispose of waste properly and clean the affected area.

### 6.4 Reference to Other Sections:

- For disposal instructions, refer to Section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

#### Storage class

Storage class (TRGS 510): 3: Flammable liquids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated





### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Ingredients with workplace control parameters

#### 8.2 Exposure controls

##### Personal protective equipment

###### Eye/Face Protection:

- Utilize eye protection equipment that meets the testing and approval standards established by the appropriate government agencies, such as NIOSH (US) or EN 166 (EU). Safety glasses are recommended.

###### Skin Protection:

- This recommendation is specific to the product described in the safety data sheet provided by us, and it applies to its designated use. When the product is dissolved, mixed with other substances, or used under conditions that differ from those specified in EN374, please take appropriate precautions.

###### Body Protection:

- Wear flame-retardant antistatic protective clothing.

###### Respiratory Protection:

- Use Filter A (in accordance with DIN 3181) for protection against vapors of organic compounds.
- The entrepreneur is responsible for ensuring that respiratory protective devices are properly maintained, cleaned, and tested according to the manufacturer's instructions. Document these measures appropriately.

###### Control of Environmental Exposure:

- Prevent the product from entering drainage systems, as there is a risk of explosion.





### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- |   |  |
|---|--|
| a) Physical state                               | liquid   |
| b) Color  | colorless  |
| c) Odor   | pungent  |
| d) Melting point/freezing point                 | Melting point/range: -129 °C - lit.<br>96 - 98 °C - lit.   |
| e) Initial boiling point and boiling range      | No data available  |
| f) Flammability (solid, gas)                    | Upper explosion limit: 18 %(V)<br>Lower explosion limit: 2,5 %(V)  |
| g) Upper/lower flammability or explosive limits |  |
| h) Flash point                                  | 22 °C - closed cup   |
| i) Autoignition temperature                     | 377,77 °C  |
| j) Decomposition temperature                    | No data available  |
| k) pH   | No data available  |
| l) Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: < 10 mPa.s at 20 °C - OECD Test Guideline 114 |
| m) Water solubility                             | 4,3 g/l at 20 °C - OECD Test Guideline 105- soluble  |
| n) Partition coefficient: n-octanol/water       | No data available  |
| o) Vapor pressure                               | 31,7 hPa at 25 °C  |
| p) Density                                      | 0,854 g/cm <sup>3</sup> at 25 °C - lit.  |
| Relative density                                | No data available  |
| q) Relative vapor density                       | No data available<br>No data available   |
| r) Particle characteristics                     |  |
| s) Explosive properties                         | No data available  |
| t) Oxidizing properties                         | none   |

#### 9.2 Other safety information

- |                        |  |
|------------------------|--|
| Surface tension        | 73,1 mN/m <sup>1</sup> at 20 °C<br>- OECD Test Guideline 115 |
| Relative vapor density | 2,01 - (Air = 1.0)   |





### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Vapors may form explosive mixture with air.

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### 10.3 Possibility of hazardous reactions

Risk of explosion with:

- alkali salts
- alkaline earth compoundssulfuric acid
- chlorates tetrachloromethane
- Risk of ignition or formation of inflammable gases or vapours with:Oxidizing agents
- Strong acids
- Exothermic reaction with:
- Sodium hydroxide solutionFluorine
- Alkali metals hydrogen peroxide Sodium hydroxide

#### 10.4 Conditions to avoid

Warming.

#### 10.5 Incompatible materials

No data available

#### 10.6 Hazardous decomposition products

In the event of fire: see section 5

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

LD50 Oral - Rat - male - 105 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 105 mg/kg

(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Inhalation - 4 h - 3,1 mg/l - vapor

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)







LD50 Dermal - Rabbit - male - 89 mg/kg  
(OECD Test Guideline 402)  
Acute toxicity estimate Dermal - 89 mg/kg  
(ATE value derived from LD50/LC50 value)

### **Skin corrosion/irritation**

Remarks: Causes skin irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

### **Serious eye damage/eye irritation**

Remarks: Causes serious eye irritation.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Remarks: Risk of corneal clouding.

Lacrimal irritation due to vapours.

Risk of blindness!

### **Respiratory or skin sensitization**

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

### **Germ cell mutagenicity**

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: positive

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: positive

Test Type: dominant lethal test

Species: Rat

Application Route: Gavage

Method: OECD Test Guideline 478

Result: negative

Test Type: Micronucleus test

Species: Rat

Cell type: Bone marrow

Application Route: Intraperitoneal

Method: OECD Test Guideline 474

Result: negative

Test Type: Micronucleus test

Species: Mouse





Cell type: Red blood cells (erythrocytes)  
Application Route: Gavage  
Method: OECD Test Guideline 474  
Result: negative

Test Type: unscheduled DNA synthesis assay  
Species: Rat  
Cell type: Liver cells  
Application Route: Gavage  
Method: OECD Test Guideline 486  
Result: negative

### **Carcinogenicity**

This product is or contains a component that is probably not carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

### **Reproductive toxicity**

Suspected of damaging the unborn child.  
Suspected of damaging fertility.

### **Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation. - Respiratory Tract

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

### **Specific target organ toxicity - repeated exposure**

No data available

### **Aspiration hazard**

No data available

## **11.2 Additional Information**

### **Endocrine disrupting properties**

#### **Product:**

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish                      semi-static test LC50 - *Oryzias latipes* - 0,589 mg/l - 96 h





	(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - Daphnia magna (Water flea) - 1,65 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata - 5,38 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - Daphnia magna (Water flea) - 0,919 mg/l - 21 d (OECD Test Guideline 211)

### 12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 14 d Result: 86 % - Readily biodegradable. (OECD Test Guideline 301C)
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### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

#### **Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 1098

IMDG: 1098

IATA: 1098





### 14.2 UN proper shipping name

ADR/RID: ALLYL ALCOHOL

IMDG: ALLYL ALCOHOL

IATA: Allyl alcohol

Passenger Aircraft: Not permitted for transport

Cargo Aircraft: Not permitted for transport

### 14.3 Transport hazard class(es)

ADR/RID: 6.1 (3)

IMDG: 6.1 (3)

IATA: 6.1 (3)

### 14.4 Packaging group

ADR/RID: I

IMDG: I

IATA: -

### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

### 14.6 Special precautions for user

Tunnel restriction code : (C/D)

Further information : No data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Authorisations and/or restrictions on use

##### National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

H2 ACUTE TOXIC

P5c FLAMMABLE LIQUIDS

E1 ENVIRONMENTAL HAZARDS

H2 ACUTE TOXIC

P5c FLAMMABLE LIQUIDS

E1 ENVIRONMENTAL HAZARDS

#### Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out





### SECTION 16: Other information

#### Full text of other abbreviations

These are abbreviations and acronyms commonly used in the field of chemical safety, regulation, and transportation:

1. ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
2. ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
3. AIIC - Australian Inventory of Industrial Chemicals
4. ASTM - American Society for the Testing of Materials
5. bw - Body weight
6. CMR - Carcinogen, Mutagen, or Reproductive Toxicant
7. DIN - Standard of the German Institute for Standardization
8. DSL - Domestic Substances List (Canada)
9. EC<sub>x</sub> - Concentration associated with x% response
10. EL<sub>x</sub> - Loading rate associated with x% response
11. EmS - Emergency Schedule
12. ENCS - Existing and New Chemical Substances (Japan)
13. ErC<sub>x</sub> - Concentration associated with x% growth rate response
14. GHS - Globally Harmonized System
15. GLP - Good Laboratory Practice
16. IARC - International Agency for Research on Cancer
17. IATA - International Air Transport Association
18. IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
19. IC<sub>50</sub> - Half maximal inhibitory concentration
20. ICAO - International Civil Aviation Organization
21. IECSC - Inventory of Existing Chemical Substances in China
22. IMDG - International Maritime Dangerous Goods
23. IMO - International Maritime Organization
24. ISHL - Industrial Safety and Health Law (Japan)
25. ISO - International Organization for Standardization
26. KECI - Korea Existing Chemicals Inventory
27. LC<sub>50</sub> - Lethal Concentration to 50% of a test population
28. LD<sub>50</sub> - Lethal Dose to 50% of a test population (Median Lethal Dose)
29. MARPOL - International Convention for the Prevention of Pollution from Ships
30. n.o.s. - Not Otherwise Specified
31. NO(A)EC - No Observed (Adverse) Effect Concentration





- 32. NO(A)EL - No Observed (Adverse) Effect Level
- 33. NOELR - No Observable Effect Loading Rate
- 34. NZIoC - New Zealand Inventory of Chemicals
- 35. OECD - Organization for Economic Co-operation and Development
- 36. OPPTS - Office of Chemical Safety and Pollution Prevention
- 37. PBT - Persistent, Bio accumulative, and Toxic substance
- 38. PICCS - Philippines Inventory of Chemicals and Chemical Substances
- 39. (Q)SAR - (Quantitative) Structure Activity Relationship
- 40. REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals
- 41. RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
- 42. SADT - Self-Accelerating Decomposition Temperature
- 43. SDS - Safety Data Sheet
- 44. TCSI - Taiwan Chemical Substance Inventory
- 45. TECI - Thailand Existing Chemicals Inventory
- 46. TSCA - Toxic Substances Control Act (United States)
- 47. UN - United Nations
- 48. UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods
- 49. vPvB - Very Persistent and Very Bio accumulative

### **Additional information**

The provided information is considered accurate but is not intended to cover every aspect and should be regarded as a general reference. The content in this document is derived from our current understanding and is relevant to the product concerning the necessary safety measures.

