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### Trade name: Propyl alcohol natural



- CAS: 71-23-8 Propan-1-ol · Identification number(s)
- EC number: 200-746-9
- EC number: 200-746-9

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· Index number: 603-003-00-0

### 4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

# 5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture No further relevant information available. • Advice for firefighters
- · Protective equipment: No special measures required.
- · Additional information
- Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 6 Accidental release measures

<ul> <li>Personal precautions, protective equipment and emergency procedures</li> <li>Wear protective equipment. Keep unprotected persons away.</li> </ul>
• Environmental precautions: Do not allow to enter sewers/ surface or ground water.
• Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
· Protective Action Criteria for Chemicals
· PAC-1:
250 ppm
PAC-2:
670 ppm
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### · PAC-3:

4000\* ppm

# 7 Handling and storage

#### · Handling:

 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
 Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see section 7.

#### Control parameters

Components with limit values that require monitoring at the workplace:

### CAS: 71-23-8 Propan-1-ol

- PEL Long-term value: 500 mg/m<sup>3</sup>, 200 ppm
- REL Short-term value: 625 mg/m<sup>3</sup>, 250 ppm Long-term value: 500 mg/m<sup>3</sup>, 200 ppm Skin
- TLV Long-term value: 100 ppm

• Additional information: The lists that were valid during the creation were used as a basis.

- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.
   Breathing equipment:
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

### • Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### · Penetration time of glove material

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

#### · Eye protection:



Tightly sealed goggles

#### 9 Physical and chemical properties · Information on basic physical and chemical properties **General Information** Molecular Weight: 60.1 g/mol · Appearance: Form: Liquid According to product specification Color: According to product specification · Odor: Not determined. · Odor threshold: · pH-value: 7 · Change in condition Melting point/Melting range: -127 °C (-196.6 °F) 96.5-97.5 °C (205.7-207.5 °F) Boiling point/Boiling range: · Flash point: 22 °C (71.6 °F) · Flammability (solid, gaseous): Highly flammable. 360 °C (680 °F) Auto igniting: · Decomposition temperature: Not determined.

 Ignition temperature:
 Not determined.

 Danger of explosion:
 Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

 Explosion limits:
 2.1 Vol %

 Upper:
 13.5 Vol %

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· Vapor pressure at 20 °C (68 °F): · Vapor pressure at 50 °C (122 °F):	19 hPa (14.3 mm Hg) 117 hPa (87.8 mm Hg)
Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate	0.8035 g/cm³ (6.70521 lbs/gal) Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	1 g/l
Partition coefficient (n-octanol/wate	er): Not determined.
<ul> <li>Viscosity: Dynamic at 20 °C (68 °F): Kinematic: Organic solvents: VOC content:</li> </ul>	2.3 mPas Not determined. 100.0 % 100.00 % 803.5 g/l / 6.71 lb/gal
· Other information	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

CAS: 71-23-8 Propan-1-ol           Oral         LD50         2,825 mg/kg (ATE)           1,870 mg/kg (rat)         1,870 mg/kg (rat)           Dermal         LD50         4,032 mg/kg (ATE)           5,040 mg/kg (rabbit)         5,040 mg/kg (rabbit)	LD/LC50 values that are relevant for classification: CAS: 71-23-8 Propan-1-ol	
Oral         LD50         2,825 mg/kg (ATE)           1,870 mg/kg (rat)         1,870 mg/kg (rat)           Dermal         LD50         4,032 mg/kg (ATE)           5,040 mg/kg (rabbit)         5,040 mg/kg (rabbit)		
Dermal LD50 1,870 mg/kg (rat) 4,032 mg/kg (ATE) 5,040 mg/kg (rabbit)		
Dermal LD50 4,032 mg/kg (ATE) 5,040 mg/kg (rabbit)	Oral  LD50 2,825 mg/kg (ATE)	
5,040 mg/kg (rabbit)	1,870 mg/kg (rat)	
	Dermal LD50 4,032 mg/kg (ATE)	
Primary irritant effect:	5,040 mg/kg (rabbit)	
	Primary irritant effect:	
	o <b>n the skin:</b> No irritant effect. • <b>on the eye:</b> Strong irritant with the danger of severe eye injury.	



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- Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)
- Substance is not listed.
- NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

### 12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

### · Results of PBT and vPvB assessment

- · PBT: Not applicable.
- · **vPvB:** Not applicable.
- Other adverse effects No further relevant information available.

## 13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- **Recommendation:** Disposal must be made according to official regulations.

· UN-Number	
· DOT, IMDG, IATA	UN1274
· UN proper shipping name	
DOT	n-Propanol
· IMDG, IATA	n-PROPANOL (PROPYL ALCOHOL, NORMAL)



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Transport hazard class(es)	
DOT	
	$\overline{\mathcal{O}}$
Class	3 Flammable liquids
Label	3
IMDG, IATA	
$\mathbf{V}$	
Class Label	3 Flammable liquids 3
	5
Packing group DOT, IMDG, IATA	
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler code): EMS Number:	33 F-E,S-E
Stowage Category	г- <u>с,о-с</u> В
Transport in bulk according to Annex II of	/
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 5 L
	On cargo aircraft only: 60 L
IMDG Limited quantities (LQ)	11
Excepted quantities (EQ)	Code: E2
.0	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1274 N-PROPANOL (PROPYL ALCOHOL, NORMAL), 3, II

# 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
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• Section 355 (extremely hazardous substances):

Substance is not listed.

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Section 313 (Specific toxic chemical listings):	
Substance is not listed.	
TSCA (Toxic Substances Control Act):	
ACTIVE	
Hazardous Air Pollutants	
Substance is not listed.	
Proposition 65	
Chemicals known to cause cancer:	
Substance is not listed.	
Chemicals known to cause reproductive toxicity for females:	
Substance is not listed.	
Chemicals known to cause reproductive toxicity for males:	
Substance is not listed.	
Chemicals known to cause developmental toxicity:	
Substance is not listed.	
Carcinogenic categories	
EPA (Environmental Protection Agency)	
Substance is not listed.	
TLV (Threshold Limit Value)	
A4	
NIOSH-Ca (National Institute for Occupational Safety and Health)	
Substance is not listed.	
<b>GHS label elements</b> Pictograms on label shall be in the shape of a square set at a point symbol on a white background with a red frame sufficiently wide to be The substance is classified and labeled according to the Globally Harr <b>Hazard pictograms</b>	clearly visible.



· Signal word Danger

· Hazard-determining components of labeling:

Propan-1-ol

### Hazard statements

H225 Highly flammable liquid and vapor.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310	Immediately call a poison center/doctor.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Product Safety Department

### • Contact: Product Safety Department

- productsafety@adv-bio.com
- Date of preparation / last revision 02/09/2024

· Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Flammable Liquids 2: Flammable liquids - Category 2 Eye Damage 1: Serious eye damage/eye irritation - Category 1 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) - Category 3