

according to Regulation (EC) No. 1907/2006

Creation Date 10-Jun-2008 Revision Date 24-Mar-2024 Revision Number 2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

 Product Description:
 Allyl alcohol

 Cat No. :
 C10286

 Synonyms
 2-Propen-1-ol

 Index No
 603-015-00-6

 CAS No
 107-18-6

 EC No
 203-470-7

 Molecular Formula
 C3 H6 O

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company

Thermo Fisher (Kandel) GmbH

Erlenbachweg 2, 76870 Kandel, Germany

Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

Swiss distributor - Fisher Scientific AG Neuhofstrasse 11, CH 4153 Reinach

Tel: +41 (0) 56 618 41 11

https://www.fishersci.ch/ch/en/customer-help-

support/forms/email-us.html

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:

Tox Info Suisse Emergency Number: 145 (24hr)

Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)

Chemtrec (24h) Toll-Free: 0800 564 402 Chemtrec Local: +41-43 508 20 11 (Zurich)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Flammable liquids Category 2 (H225)

Health hazards

| Acute oral toxicity | Category 3 (H301) |
|--|-------------------|
| Acute dermal toxicity | Category 2 (H310) |
| Acute Inhalation Toxicity - Vapors | Category 2 (H330) |
| Skin Corrosion/Irritation | Category 2 (H315) |
| Serious Eye Damage/Eye Irritation | Category 2 (H319) |
| Specific target organ toxicity - (single exposure) | Category 3 (H335) |

Environmental hazards

Acute aquatic toxicity
Chronic aquatic toxicity
Category 1 (H400)
Category 3 (H412)

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H400 - Very toxic to aquatic life

H310 + H330 - Fatal in contact with skin or if inhaled

Precautionary Statements

P280 - Wear protective gloves/protective clothing/eve protection/face protection

P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water

P310 - Immediately call a POISON CENTER or doctor/physician

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB) Lachrymator (substance which increases the flow of tears)

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

| Component | CAS No | EC No | Weight % | CLP Classification - Regulation (EC) No 1272/2008 |
|---------------|----------|-------------------|----------|---|
| Allyl alcohol | 107-18-6 | EEC No. 203-470-7 | <=100 | Flam. Liq. 2 (H225) |
| | | | | Acute Tox. 3 (H301) |
| | | | | Acute Tox. 2 (H310) |
| | | | | Acute Tox. 2 (H330) |
| | | | | Skin Irrit. 2 (H315) |
| | | | | Eye Irrit. 2 (H319) |
| | | | | STOT SE 3 (H335) |
| | | | | Aquatic Acute 1 (H400) |
| | | | | Aquatic Chronic 3 (H412) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|---------------|---------------------------------------|----------|-----------------|
| Allyl alcohol | - | 1 | - |

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

Eye Contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth

method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

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

Notes to Physician Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO2).

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

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Keep away from heat, sparks and flame. Flammables area. Keep under nitrogen. Keep container tightly closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Class 3

Switzerland - Storage of hazardous substances

Storage class - SC 3 https://www.kvu.ch/de/themen/stoffe-und-produkte

https://www.kvu.ch/fr/themes/substances-et-produits https://www.kvu.ch/it/temi/sostanze-e-prodotti

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

| Component | European Union | The United Kingdom | France | Belgium | Spain |
|---------------|---------------------------------|------------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|
| Allyl alcohol | TWA: 2 ppm 8 hr | STEL: 4 ppm 15 min | TWA / VME: 0.2 ppm (8 | TWA: 2 ppm 8 uren | STEL / VLA-EC: 5 ppm |
| | TWA: 4.8 mg/m ³ 8 hr | STEL: 9.7 mg/m ³ 15 min | heures). indicative limit | TWA: 4.8 mg/m ³ 8 uren | (15 minutos). |
| | STEL: 5 ppm 15 min | TWA: 2 ppm 8 hr | TWA / VME: 0.48 mg/m ³ | STEL: 4 ppm 15 | STEL / VLA-EC: 12 |
| | STEL: 12.1 mg/m ³ 15 | TWA: 4.8 mg/m ³ 8 hr | (8 heures). indicative | minuten | mg/m³ (15 minutos). |
| | min | Skin | limit | STEL: 9.6 mg/m ³ 15 | TWA / VLA-ED: 2 ppm |
| | Possibility of significant | | STEL / VLCT: 2 ppm. | minuten | (8 horas) |
| | uptake through the skin | | indicative limit | Huid | TWA / VLA-ED: 5 mg/m ³ |
| | | | STEL / VLCT: 4.8 | | (8 horas) |
| | | | mg/m ³ . indicative limit | | Piel |
| | | | Peau | | |

| Component | Italy | Germany | Portugal | The Netherlands | Finland |
|---------------|-----------------------------------|---------------------|----------------------|-----------------------------------|--------------------------------|
| Allyl alcohol | TWA: 2 ppm 8 ore. | TWA: 2 ppm (8 | TWA: 0.5 ppm 8 horas | huid | TWA: 0.5 ppm 8 |
| | TWA: 4.8 mg/m ³ 8 ore. | Stunden). AGW - | Pele | STEL: 12.1 mg/m ³ 15 | tunteina |
| | STEL: 5 ppm 15 minuti. | exposure factor 2.5 | | minuten | TWA: 1.2 mg/m ³ 8 |
| | STEL: 12.1 mg/m ³ 15 | TWA: 4.8 mg/m³ (8 | | TWA: 4.8 mg/m ³ 8 uren | tunteina |
| | minuti. | Stunden). AGW - | | | STEL: 2 ppm 15 |
| | Pelle | exposure factor 2.5 | | | minuutteina |
| | | Haut | | | STEL: 4.8 mg/m ³ 15 |
| | | | | | minuutteina |
| | 1 | | | | lho |

| Component | Austria | Denmark | Switzerland | Poland | Norway |
|---------------|----------------------------------|------------------------------------|-------------------------------|-------------------------------|----------------------------------|
| Allyl alcohol | Haut | TWA: 2 ppm 8 timer | Haut/Peau | STEL: 10 mg/m ³ 15 | TWA: 2 ppm 8 timer |
| | MAK-KZW: 5 ppm 15 | TWA: 4.8 mg/m ³ 8 timer | STEL: 4 ppm 15 | minutach | TWA: 5 mg/m ³ 8 timer |
| | Minuten | Hud | Minuten | TWA: 2 mg/m ³ 8 | STEL: 4 ppm 15 |
| | MAK-KZW: 12 mg/m ³ 15 | | STEL: 10 mg/m ³ 15 | godzinach | minutter. |
| | Minuten | | Minuten | | STEL: 10 mg/m ³ 15 |
| | MAK-TMW: 2 ppm 8 | | TWA: 2 ppm 8 Stunden | | minutter. |
| | Stunden | | TWA: 5 mg/m ³ 8 | | Hud |
| | MAK-TMW: 4.8 mg/m ³ 8 | | Stunden | | |
| | Stunden | | | | |

| Component | Bulgaria | Croatia | Ireland | Cyprus | Czech Republic |
|---------------|------------|---------|------------------|--------------------|----------------------------|
| Allyl alcohol | TWA: 2 ppm | kože | TWA: 2 ppm 8 hr. | Skin-potential for | TWA: 4 mg/m ³ 8 |

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| TWA: 4.8 mg/m ³ | TWA-GVI: 2 ppm 8 | TWA: 4.8 mg/m ³ 8 hr. | cutaneous absorption | hodinách. |
|------------------------------|-----------------------------------|----------------------------------|------------------------------|-------------------------------|
| STEL: 5 ppm | satima. | STEL: 5 ppm 15 min | STEL: 5 ppm | Potential for cutaneous |
| STEL: 12.1 mg/m ³ | TWA-GVI: 4.8 mg/m ³ 8 | STEL: 12.1 mg/m ³ 15 | STEL: 12.1 mg/m ³ | absorption |
| Skin notation | satima. | min | TWA: 2 ppm | Ceiling: 10 mg/m ³ |
| | STEL-KGVI: 5 ppm 15 | Skin | TWA: 4.8 mg/m ³ | |
| | minutama. | | _ | |
| | STEL-KGVI: 12.1 mg/m ³ | | | |
| | 15 minutama. | | | |

| Component | Estonia | Gibraltar | Greece | Hungary | Iceland |
|---------------|---------------------------------|---------------------------------|----------------------------|---------------------------------|--------------------------------|
| Allyl alcohol | Nahk | Skin notation | skin - potential for | STEL: 12.1 mg/m ³ 15 | STEL: 5 ppm |
| | TWA: 2 ppm 8 tundides. | TWA: 2 ppm 8 hr | cutaneous absorption | percekben. CK | STEL: 12.1 mg/m ³ |
| | TWA: 4.8 mg/m ³ 8 | TWA: 4.8 mg/m ³ 8 hr | STEL: 4 ppm | TWA: 4.8 mg/m ³ 8 | TWA: 2 ppm 8 |
| | tundides. | STEL: 5 ppm 15 min | STEL: 10 mg/m ³ | órában. AK | klukkustundum. |
| | STEL: 5 ppm 15 | STEL: 12.1 mg/m ³ 15 | TWA: 2 ppm | lehetséges borön | TWA: 4.8 mg/m ³ 8 |
| | minutites. | min | TWA: 5 mg/m ³ | keresztüli felszívódás | klukkustundum. |
| | STEL: 12.1 mg/m ³ 15 | | | | Skin notation |
| | minutites. | | | | Ceiling: 4 ppm |
| | | | | | Ceiling: 9.6 mg/m ³ |

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|---------------|------------------------------|------------------------------|---------------------------------|---------------------------------|----------------------------------|
| Allyl alcohol | skin - potential for | TWA: 2 ppm IPRD | Possibility of significant | possibility of significant | Skin notation |
| | cutaneous exposure | TWA: 4.8 mg/m³ IPRD | uptake through the skin | uptake through the skin | TWA: 2 ppm 8 ore |
| | STEL: 5 ppm | Oda | TWA: 2 ppm 8 Stunden | TWA: 2 ppm | TWA: 4.8 mg/m ³ 8 ore |
| | STEL: 12.1 mg/m ³ | STEL: 5 ppm | TWA: 4.8 mg/m ³ 8 | TWA: 4.8 mg/m ³ | STEL: 5 ppm 15 minute |
| | TWA: 2 ppm | STEL: 12.1 mg/m ³ | Stunden | STEL: 5 ppm 15 minuti | STEL: 12.1 mg/m ³ 15 |
| | TWA: 4.8 mg/m ³ | _ | STEL: 5 ppm 15 | STEL: 12.1 mg/m ³ 15 | minute |
| | | | Minuten | minuti | |
| | | | STEL: 12.1 mg/m ³ 15 | | |
| | | | Minuten | | |

| Component | Russia | Slovak Republic | Slovenia | Sweden | Turkey |
|---------------|--------------------------|---------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| Allyl alcohol | MAC: 2 mg/m ³ | Ceiling: 12.1 mg/m ³ | TWA: 2 ppm 8 urah | STV: 6 ppm 15 minuter | Deri |
| | _ | Potential for cutaneous | TWA: 4.8 mg/m ³ 8 urah | STV: 14 mg/m ³ 15 | TWA: 2 ppm 8 saat |
| | | absorption | Koža | minuter | TWA: 4.8 mg/m ³ 8 saat |
| | | TWA: 2 ppm | STEL: 5 ppm 15 | LLV: 2 ppm 8 timmar. | STEL: 5 ppm 15 dakika |
| | | TWA: 4.8 mg/m ³ | minutah | LLV: 5 mg/m ³ 8 timmar. | STEL: 12.1 mg/m ³ 15 |
| | | _ | STEL: 12 mg/m ³ 15 | Hud | dakika |
| | | | minutah | | |

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component | Acute effects local (Dermal) | Acute effects systemic (Dermal) | Chronic effects local (Dermal) | Chronic effects systemic (Dermal) |
|---------------|------------------------------|---------------------------------|--------------------------------|-----------------------------------|
| Allyl alcohol | | DNEL = 7.6mg/kg | | DNEL = 0.125mg/kg |

| Ī | 107-18-6 (<=100) | bw/dav | bw/dav |
|-----|---------------------|--------|--------|
| - 1 | 107-10-0 (<= 100) | Dw/day | DW/day |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) | | |
|-------------------------------------|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|--|--|
| Allyl alcohol 107-18-6 (<=100) | DNEL = 12.1mg/m ³ | DNEL = 12.1mg/m ³ | | DNEL = 4.63mg/m ³ | | |

Predicted No Effect Concentration (PNEC)

See values below.

| Γ | Component | Fresh water | Fresh water | Water Intermittent Microorganisms in | | Soil (Agriculture) |
|---|--------------------|---------------------|------------------------|--------------------------------------|------------------|------------------------|
| | | | sediment | | sewage treatment | |
| Γ | Allyl alcohol | PNEC = $3.2\mu g/L$ | $PNEC = 12.7 \mu g/kg$ | PNEC = $3.2\mu g/L$ | PNEC = 10mg/L | $PNEC = 3.68 \mu g/kg$ |
| L | 107-18-6 (<=100) | | sediment dw | | | soil dw |

| Component | Component Marine water | | Marine water Intermittent | Food chain | Air |
|-------------------------------------|------------------------|---------------------------------|------------------------------|--------------------------|-----|
| Allyl alcohol 107-18-6 (<=100) | PNEC = 0.32μg/L | PNEC = 1.27µg/kg sediment dw | | PNEC = 0.33mg/kg food | |

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles (European standard - EN 166)

Hand Protection Protective gloves

| PVC |
|-----|
|-----|

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to

EN14387

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN

141

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water

system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Liquid

Appearance Colorless

Odor
Odor Threshold
No data available
No data available
Melting Point/Range
Softening Point
No data available
No data available

Boiling Point/Range 96 - 98 °C / 204.8 - 208.4 °F

Flammability (liquid) Highly flammable On basis of test data

Flammability (solid,gas) Not applicable Liquid

Explosion Limits Lower 2.5 Vol%

Upper 18 Vol%

Flash Point 21 °C / 69.8 °F Method - No information available

Autoignition Temperature
Decomposition Temperature
pH
Viscosity

375 °C / 707 °F
No data available
No information available
No data available

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog PowAllyl alcohol0.17

Vapor Pressure 17.3 mmHg @ 20 °C

Density / Specific Gravity 0.850
Bulk Density Not appli

Bulk DensityNot applicableLiquidVapor DensityNo data available(Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

Molecular Formula C3 H6 O Molecular Weight 58.08

Explosive Properties Vapors may form explosive mixtures with air

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Polymerization can occur.
Hazardous Reactions Polymerization can occur.
None under normal processing.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.

10.5. Incompatible materials

Acids. Strong oxidizing agents. Metals.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity;

Oral Category 3
Dermal Category 2
Inhalation Category 2

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---------------------------------------|-----------|----------------------------|-----------------------------|
| Allyl alcohol LD50 = 64 mg/kg (Rat) | | LD50 = 45 mg/kg (Rabbit) | LC50 = 0.391 mg/L (Rat) 4 h |
| | | | |

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

(e) germ cell mutagenicity; No data available

Not mutagenic in AMES Test

(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component | EU | UK | Germany | IARC |
|---------------|----|----|---------|------|
| Allyl alcohol | | | Cat. 3B | |

(g) reproductive toxicity; No data available

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system.

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

delayed

Symptoms / effects, both acute and Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

11.2. Information on other hazards

Endocrine Disrupting Properties

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Very toxic to aquatic organisms. The product contains following substances which are

hazardous for the environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---------------|---------------------------------|-----------------------|------------------|
| Allyl alcohol | 0.32 mg/L LC50 96 h 0.28 - 0.37 | 0.25 mg/L EC50 = 96 h | |
| | mg/L LC50 96 h | - | |

| Component | Microtox | M-Factor |
|---------------|------------------------|----------|
| Allyl alcohol | EC50 = 216 mg/L 30 min | 1 |
| | EC50 = 342 mg/L 15 min | |
| | EC50 = 608 mg/L 5 min | |

12.2. Persistence and degradability

Persistence

Persistence is unlikely.

Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|---------------|---------|-------------------------------|
| Allyl alcohol | 0.17 | No data available |

The product is water soluble, and may spread in water systems . Will likely be mobile in the 12.4. Mobility in soil

environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB

assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent

and very bioaccumulative (vPvB).

12.6. Endocrine disrupting

properties

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused

Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated PackagingDispose of this container to hazardous or special waste collection point. Empty containers

retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and

empty container away from heat and sources of ignition.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the

application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not

empty into drains.

Switzerland - Waste Ordinance Disposal should be in accordance with applicable regional, national and local laws and

regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance,

ADWO) SR 814.600

https://www.fedlex.admin.ch/eli/cc/2015/891/en

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN1098

14.2. UN proper shipping name ALLYL ALCOHOL

14.3. Transport hazard class(es)6.1Subsidiary Hazard Class314.4. Packing groupI

ADR

14.1. UN number UN1098

14.2. UN proper shipping name ALLYL ALCOHOL

14.3. Transport hazard class(es)6.1Subsidiary Hazard Class314.4. Packing groupI

<u>IATA</u> FORBIDDEN FOR IATA TRANSPORT

14.1. UN number UN1098

14.2. UN proper shipping name ALLYL ALCOHOL, FORBIDDEN FOR IATA TRANSPORT

14.3. Transport hazard class(es)6.1Subsidiary Hazard Class314.4. Packing groupI

14.5. Environmental hazards Dangerous for the environment

Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user No special precautions required.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

Allyl alcohol Revision Date 24-Mar-2024

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No | EINECS | ELINCS | NLP | IECSC | TCSI | KECL | ENCS | ISHL |
|---------------|----------|-----------|--------|-----|-------|------|------|------|------|
| Allyl alcohol | 107-18-6 | 203-470-7 | - | İ | X | X | X | Х | X |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---------------|----------|------|---|-----|------|------|-------|-------|
| Allyl alcohol | 107-18-6 | X | ACTIVE | X | - | X | X | X |

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

Authorisation/Restrictions according to EU REACH

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---------------|----------|---|--|---|
| Allyl alcohol | 107-18-6 | - | Use restricted. See item 75. (see link for restriction details) | - |

REACH links

https://echa.europa.eu/substances-restricted-under-reach

Seveso III Directive (2012/18/EC)

| Γ | Component | Component CAS No Seveso III Directive (2012/18/EC) | | Seveso III Directive (2012/18/EC) - | |
|---|---------------|--|--|---|--|
| - | - | | Qualifying Quantities for Major Accident | Qualifying Quantities for Safety Report | |
| L | | | Notification | Requirements | |
| Γ | Allyl alcohol | 107-18-6 | Not applicable | Not applicable | |

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification See table for values

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|---------------|---------------------------------------|-------------------------|
| Allyl alcohol | WGK 2 | |

| Component | France - INRS (Tables of occupational diseases) | |
|---------------|--|--|
| Allyl alcohol | Tableaux des maladies professionnelles (TMP) - RG 84 | |

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Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed

H310 - Fatal in contact with skin

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H330 - Fatal if inhaled

H335 - May cause respiratory irritation

H400 - Very toxic to aquatic life

H412 - Harmful to aquatic life with long lasting effects

Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b)

Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

Substances List

ENCS - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

vPvB - very Persistent, very Bioaccumulative

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

PBT - Persistent, Bioaccumulative, Toxic

EC50 - Effective Concentration 50% NOEC - No Observed Effect Concentration POW - Partition coefficient Octanol:Water

ADR - European Agreement Concerning the International Carriage of

Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime

Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from

Ships

ATE - Acute Toxicity Estimate

TWA - Time Weighted Average

LD50 - Lethal Dose 50%

VOC - (volatile organic compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical incident response training.

Prepared By Health, Safety and Environmental Department

Creation Date 10-Jun-2008 **Revision Date** 24-Mar-2024

Revision Summary New emergency telephone response service provider.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No

Revision Date 24-Mar-2024

1907/2006

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet