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

1.1. Product identifier

- **Product form**: Substance
- **Physical state**: Liquid
- **Substance name**: ALLYL CHLORIDE
- **Product code**: ENEA0070
- **Formula**: C3H5Cl
- **Synonyms**: 3-CHLOROPROPENE; 2-PROPENYL CHLORIDE
- **Chemical family**: ESTER

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

1.2.1. Relevant identified uses

- **Use of the substance/mixture**: Chemical intermediate

1.2.2. Uses advised against

- No additional information available

1.3. Details of the supplier of the safety data sheet

**GELEST, INC.**
11 East Steel Road
Morrisville, PA 19067
USA
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelést.com - www.gelest.com

**GELEST INC.**
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM
info@gelestde.com - www.gelestde.com

1.4. Emergency telephone number

- **Emergency number**: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

- **Flammable liquids, Category 2**: H225
- **Acute toxicity (oral), Category 3**: H301
- **Acute toxicity (dermal), Category 4**: H312
- **Acute toxicity (inhalation: vapour) Category 3**: H331
- **Skin corrosion/irritation, Category 2**: H315
- **Serious eye damage/eye irritation, Category 2**: H319
- **Germ cell mutagenicity, Category 2**: H341
- **Carcinogenicity, Category 2**: H351
- **Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation**: H335
- **Specific target organ toxicity — Repeated exposure, Category 2**: H373
- **Hazardous to the aquatic environment — Acute Hazard, Category 1**: H400

Full text of H statements: see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available
2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):

- GHS02
- GHS06
- GHS08
- GHS09

Signal word (CLP): Danger

Hazard statements (CLP):
- H225 - Highly flammable liquid and vapour.
- H301+H331 - Toxic if swallowed or if inhaled
- H312 - Harmful in contact with skin.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H341 - Suspected of causing genetic defects.
- H351 - Suspected of causing cancer.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life.

Precautionary statements (CLP):
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical equipment.
- P260 - Do not breathe vapours, mist.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
<th>:</th>
<th>Mono-constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>:</td>
<td>ALLYL CHLORIDE</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>:</td>
<td>107-05-1</td>
</tr>
<tr>
<td>EC-No.</td>
<td>:</td>
<td>203-457-6</td>
</tr>
<tr>
<td>EC Index-No.</td>
<td>:</td>
<td>602-029-00-X</td>
</tr>
</tbody>
</table>

Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
--- | ------------------- | -- | ---------------------------------------------------------------|
| Allyl Chloride | (CAS-No.) 107-05-1 | > 98 | Flam. Liq. 2, H225, Acute Tox. 4 (Oral), H302, Acute Tox. 4 (Dermal), H312, Acute Tox. 4 (Inhalation), H332, Skin Irrit. 2, H315, Eye Irrit. 2, H319, Mut. 2, H341, Carc. 2, H351, STOT SE 3, H335, STOT RE 2, H373, Aquatic Acute 1, H400 |

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Wash with plenty of water/…. 
First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

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

**Symptoms/effects after inhalation**: Harmful if inhaled. Danger of serious damage to health by prolonged exposure through inhalation.

**Symptoms/effects after skin contact**: Causes skin irritation.

**Symptoms/effects after eye contact**: Causes eye irritation.

**Symptoms/effects after ingestion**: Toxic if swallowed.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media


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

**Fire hazard**: Highly flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

**Explosion hazard**: May form flammable/explosive vapour-air mixture.

#### 5.3. Advice for firefighters

**Firefighting instructions**: Exercise caution when fighting any chemical fire.

**Protection during firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**General measures**: Eliminate every possible source of ignition. Use special care to avoid static electric charges. Remove ignition sources. No open flames. No smoking.

**For non-emergency personnel**

**Emergency procedures**: Evacuate unnecessary personnel.

**For emergency responders**

**Protective equipment**: Equip cleanup crew with proper protection.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

**For containment**: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for cleaning up**: Use only non-sparking tools. Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Additional hazards when processed**: Handle empty containers with care because residual vapours are flammable.

**Precautions for safe handling**: Avoid all eye and skin contact and do not breathe vapour and mist. Use only outdoors or in a well-ventilated area. Avoid breathing vapours. Provide good ventilation in process area to prevent formation of vapour. Use only non-sparking tools.

**Hygiene measures**: Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

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

**Technical measures**: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.

**Storage conditions**: Keep container tightly closed.

**Storage area**: Store in a well-ventilated place. Store away from heat.

#### 7.3. Specific end use(s)

No additional information available
**SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Country/EU Region</th>
<th>Parameter</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria (107-05-1)</td>
<td>MAK (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Austria</td>
<td>MAK (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Austria</td>
<td>MAK Short time value (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Austria</td>
<td>MAK Short time value (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Belgium</td>
<td>Limit value (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Belgium</td>
<td>Limit value (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Belgium</td>
<td>Short time value (mg/m³)</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Belgium</td>
<td>Short time value (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td>France</td>
<td>VME (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>France</td>
<td>VME (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL TWA (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL STEL (mg/m³)</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL STEL (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>ACGIH TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>ACGIH STEL (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td>USA IDLH</td>
<td>US IDLH (ppm)</td>
<td>250 ppm</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
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<tr>
<td>Spain</td>
<td>VLA-ED (mg/m³)</td>
<td>3.2 mg/m³</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-ED (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-EC (mg/m³)</td>
<td>6.4 mg/m³</td>
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<tr>
<td>Spain</td>
<td>VLA-EC (ppm)</td>
<td>2 ppm</td>
</tr>
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<td>Switzerland</td>
<td>KZGW (mg/m³)</td>
<td>6 mg/m³</td>
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<td>KZGW (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td>Switzerland</td>
<td>MAK (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Switzerland</td>
<td>MAK (ppm)</td>
<td>1 ppm</td>
</tr>
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<td>Czech Republic</td>
<td>Expoziční limity (PEL) (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>Grænseværdie (langvarig) (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>Grænseværdie (langvarig) (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (8h) (mg/m³)</td>
<td>3.2 mg/m³</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (8h) (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (15 min)</td>
<td>9.5 mg/m³</td>
</tr>
<tr>
<td>Hungary</td>
<td>AK-érték</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Lithuania</td>
<td>IPRV (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Lithuania</td>
<td>IPRV (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Lithuania</td>
<td>TPRV (mg/m³)</td>
<td>9 mg/m³</td>
</tr>
<tr>
<td>Lithuania</td>
<td>TPRV (ppm)</td>
<td>3 ppm</td>
</tr>
<tr>
<td>Norway</td>
<td>Grenseverdier (AN) (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Norway</td>
<td>Grenseverdier (AN) (ppm)</td>
<td>1 ppm</td>
</tr>
</tbody>
</table>
### 8.2. Exposure controls

**Appropriate engineering controls:**

Provide local exhaust or general room ventilation.

**Personal protective equipment:**

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Hand protection:**

Neoprene or nitrile rubber gloves

**Eye protection:**

Chemical goggles. Contact lenses should not be worn

**Skin and body protection:**

Wear suitable protective clothing

**Respiratory protection:**

[In case of inadequate ventilation] wear respiratory protection. NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

### SECTION 9: Physical and chemical properties

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

**Physical state**: Liquid

**Appearance**: Clear liquid.

**Molecular mass**: 76.52 g/mol

**Colour**: Straw yellow.

**Odour**: Characteristic.

**Odour threshold**: No data available

**Refractive index**: 1.414

**pH**: No data available

**Relative evaporation rate (butylacetate=1)**: 7

**Melting point**: No data available
### ALLYL CHLORIDE

#### Safety Data Sheet

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freezing point</td>
<td>-130 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>44 - 46 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>31 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>485 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>295 mm Hg</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>2.6</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.939</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>100 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water. Slightly. Water: 0.36 %</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
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<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>2.9 - 11.2 vol % (lower; upper)</td>
</tr>
</tbody>
</table>

#### SECTION 10: Stability and reactivity

1. **Reactivity**
   - No additional information available

2. **Chemical stability**
   - Stable.

3. **Possibility of hazardous reactions**
   - No additional information available

4. **Conditions to avoid**

5. **Incompatible materials**

6. **Hazardous decomposition products**
   - Organic acid vapors.

#### SECTION 11: Toxicological information

1. **Information on toxicological effects**

   **Acute toxicity**
   - Toxic if swallowed. Harmful in contact with skin. Toxic if inhaled.

   **ALLYL CHLORIDE (107-05-1)**
   - LD50 oral rat: 120 mg/kg
   - ATE CLP (oral): 120 mg/kg bodyweight
   - ATE CLP (dermal): 1122.449 mg/kg bodyweight
   - ATE CLP (vapours): 3 mg/l/4h

   **Allyl Chloride (107-05-1)**
   - LD50 oral rat: 450 mg/kg
   - LD50 dermal rabbit: 2026 mg/kg
   - LC50 inhalation rat (mg/l): 11 mg/l/4h
   - ATE CLP (oral): 450 mg/kg bodyweight
   - ATE CLP (dermal): 1100 mg/kg bodyweight
   - ATE CLP (gases): 4500 ppmv/4h
   - ATE CLP (vapours): 11 mg/l/4h
   - ATE CLP (dust,mist): 1.5 mg/l/4h

   **Skin corrosion/irritation**
   - Causes skin irritation.

   **Serious eye damage/irritation**
   - Causes serious eye irritation.

   **Respiratory or skin sensitisation**
   - Not classified

   **Germ cell mutagenicity**
   - Suspected of causing genetic defects.
ALLYL CHLORIDE
Safety Data Sheet

Carcinogenicity: Suspected of causing cancer. Mouse feeding and inhalation studies classify this material as an equivocal tumorigenic agent. (RTECS UC7350000/UC7026FO)

### Allyl Chloride (107-05-1)

<table>
<thead>
<tr>
<th>IARC group</th>
<th>3 - Not classifiable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Potential adverse human health effects and symptoms</td>
<td>Harmful if inhaled. Toxic if swallowed.</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
<td>Harmful if inhaled. Danger of serious damage to health by prolonged exposure through inhalation.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
<td>Causes eye irritation.</td>
</tr>
<tr>
<td>Symptoms/effects after ingestion</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>Reason for classification</td>
<td>Expert judgment</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

#### 12.1. Toxicity
Ecology - water: Harmful to aquatic life.
Acute aquatic toxicity: Very toxic to aquatic life.
Chronic aquatic toxicity: Not classified

<table>
<thead>
<tr>
<th>Allyl Chloride (107-05-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>LC50 fish 2</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
No additional information available

#### 12.3. Bioaccumulative potential

#### 12.4. Mobility in soil
No additional information available

#### 12.5. Results of PBT and vPvB assessment
No additional information available

#### 12.6. Other adverse effects
Other adverse effects: Harmful to aquatic life if released to open waters.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Additional information: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials: Avoid release to the environment.

### SECTION 14: Transport information

#### 14.1. UN number
In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number
UN-No. (ADR): 1100
UN-No. (IMDG): 1100
UN-No. (IATA): 1100
UN-No. (ADN): 1100
UN-No. (RID): 1100
**14.2. UN proper shipping name**

<table>
<thead>
<tr>
<th>Proper Shipping Name (ADR)</th>
<th>ALLYL CHLORIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name (IMDG)</td>
<td>ALLYL CHLORIDE</td>
</tr>
<tr>
<td>Proper Shipping Name (IATA)</td>
<td>Allyl chloride</td>
</tr>
<tr>
<td>Proper Shipping Name (ADN)</td>
<td>ALLYL CHLORIDE</td>
</tr>
<tr>
<td>Proper Shipping Name (RID)</td>
<td>ALLYL CHLORIDE</td>
</tr>
<tr>
<td>Transport document description (ADR)</td>
<td>UN 1100 ALLYL CHLORIDE, 3 (6.1), I, (C/E), ENVIRONMENTALLY HAZARDOUS</td>
</tr>
<tr>
<td>Transport document description (IMDG)</td>
<td>UN 1100 ALLYL CHLORIDE, 3 (6.1), I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (-29°C c.c.)</td>
</tr>
<tr>
<td>Transport document description (IATA)</td>
<td>UN 1100 Allyl chloride, 3 (6.1), I, ENVIRONMENTALLY HAZARDOUS</td>
</tr>
<tr>
<td>Transport document description (ADN)</td>
<td>UN 1100 ALLYL CHLORIDE, 3 (6.1), I, ENVIRONMENTALLY HAZARDOUS</td>
</tr>
<tr>
<td>Transport document description (RID)</td>
<td>UN 1100 ALLYL CHLORIDE, 3 (6.1), I, ENVIRONMENTALLY HAZARDOUS</td>
</tr>
</tbody>
</table>

**14.3. Transport hazard class(es)**

**ADR**

| Transport hazard class(es) (ADR) | 3 (6.1) |
| Danger labels (ADR) | 3, 6.1 |

**IMDG**

| Transport hazard class(es) (IMDG) | 3 (6.1) |
| Danger labels (IMDG) | 3, 6.1 |

**IATA**

| Transport hazard class(es) (IATA) | 3 (6.1) |
| Hazard labels (IATA) | 3, 6.1 |

**ADN**

| Transport hazard class(es) (ADN) | 3 (6.1) |
| Danger labels (ADN) | 3, 6.1 |

**RID**

| Transport hazard class(es) (RID) | 3 (6.1) |
| Danger labels (RID) | 3, 6.1 |
14.4. Packing group

Packing group (ADR) : I
Packing group (IMDG) : I
Packing group (IATA) : I
Packing group (ADN) : I
Packing group (RID) : I

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : FT1
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P001
Mixed packing provisions (ADR) : MP7, MP17
Portable tank and bulk container instructions (ADR) : T14
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L10CH
Tank special provisions (ADR) : TU14, TU15, TE21
Vehicle for tank carriage : FL
Transport category (ADR) : 1
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28
Special provisions for carriage - Operation (ADR) : S2, S22
Hazard identification number (Kemler No.) : 336
Orange plates : 1100

Tunnel restriction code (ADR) : C/E
EAC code : 3YE

- Transport by sea

Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P001
Tank instructions (IMDG) : T14
Tank special provisions (IMDG) : TP2, TP13
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D
Stowage category (IMDG) : E
Stowage and handling (IMDG) : SW2
Flash point (IMDG) : -29°C c.c.
Properties and observations (IMDG) : Colourless liquid with an unpleasant pungent odour. Flashpoint: -29°C c.c. Explosive limits: 3.3% to 11.1%. Boiling point: 44°C. Immiscible with water. Toxic if swallowed, by skin contact or by inhalation.

- Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : Forbidden
PCA max net quantity (IATA) : Forbidden
CAO packing instructions (IATA) : 361
CAO max net quantity (IATA) : 30L
ERG code (IATA) : 3P

- Inland waterway transport
Classification code (ADN) : FT1
Special provisions (ADN) : 802
Limited quantities (ADN) : 0
Excepted quantities (ADN) : E0
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP, EX, TOX, A
Ventilation (ADN) : VE01, VE02
Number of blue cones/lights (ADN) : 2

- Rail transport
Classification code (RID) : FT1
Limited quantities (RID) : 0
Excepted quantities (RID) : E0
Packing instructions (RID) : P001
Mixed packing provisions (RID) : MP7, MP17
Portable tank and bulk container instructions (RID) : T14
Portable tank and bulk container special provisions (RID) : TP2
Tank codes for RID tanks (RID) : L10CH
Special provisions for RID tanks (RID) : TU14, TU15, TU38, TE21, TE22
Transport category (RID) : 1
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28
Hazard identification number (RID) : 336

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
ALLYL CHLORIDE is not on the REACH Candidate List
ALLYL CHLORIDE is not on the REACH Annex XIV List
ALLYL CHLORIDE is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

% Volatiles : 100 %

15.1.2. National regulations

Germany
Reference to AwSV : Water hazard class (WGK) 2. Significantly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 15)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-list van kankerverwekkende stoffen : ALLYL CHLORIDE is listed
**ALLYL CHLORIDE**

**Safety Data Sheet**

**SZW-lijst van mutagene stoffen**
- The substance is not listed

**NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding**
- The substance is not listed

**NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtabbaarheid**
- The substance is not listed

**NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling**
- The substance is not listed

**Denmark**

**Class for fire hazard**
- Class II

**Store unit**
- 5 liter

**Classification remarks**
- R10 <H225;H301+H331;H312;H315;H319;H335;H341;H351;H373;H400>; Emergency management guidelines for the storage of flammable liquids must be followed

**Danish National Regulations**
- Young people below the age of 18 years are not allowed to use the product
- Pregnant/breastfeeding women working with the product must not be in direct contact with the product
- The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

**15.2. Chemical safety assessment**

No additional information available

**SECTION 16: Other information**

**Abbreviations and acronyms:**

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

**Other information:**
- Prepared by safety and environmental affairs.

**Full text of H- and EUH-statements:**

| Acute Tox. 3 (Inhalation: vapour) | Acute toxicity (inhalation/vapour) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Carc. 2 | Carcinogenicity, Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Muta. 2 | Germ cell mutagenicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/Irritation, Category 2 |
| STOT RE 2 | Specific target organ toxicity — Repeated exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H341 | Suspected of causing genetic defects. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
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