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

#### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Substance name</td>
<td>10-UNDECEN-1-OL</td>
</tr>
<tr>
<td>Product code</td>
<td>ENEU4325</td>
</tr>
<tr>
<td>Formula</td>
<td>C11H22O</td>
</tr>
<tr>
<td>Synonyms</td>
<td>UNDEC-10-EN-1-OL</td>
</tr>
<tr>
<td></td>
<td>UNDECYLENYL ALCOHOL</td>
</tr>
<tr>
<td>Chemical family</td>
<td>ESTER</td>
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</tbody>
</table>

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

- **1.2.1. Relevant identified uses**
  
<table>
<thead>
<tr>
<th>Use of the substance/mixture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chemical intermediate</td>
</tr>
</tbody>
</table>

- **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@gelest.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

<table>
<thead>
<tr>
<th>Emergency number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)</td>
</tr>
</tbody>
</table>

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Not classified

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

No additional information available

#### 2.2. Label elements

- **Labelling according to Regulation (EC) No. 1272/2008 [CLP]**
  
  EUH-statements:
  
  EUH210 - Safety data sheet available on request.

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

<table>
<thead>
<tr>
<th>Property</th>
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</tr>
</thead>
<tbody>
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<td>Substance type</td>
<td>Mono-constituent</td>
</tr>
<tr>
<td>Name</td>
<td>10-UNDECEN-1-OL</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>112-43-8</td>
</tr>
<tr>
<td>EC-No.</td>
<td>203-971-0</td>
</tr>
</tbody>
</table>
Name: 10-Undecen-1-ol

Product identifier: (CAS-No.) 112-43-6
(EC-No.) 203-971-0

%: 98 - 100

Classification according to Regulation (EC) No. 1272/2008 [CLP]: Not classified

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/…. Get medical advice/attention.

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: No information available.

Symptoms/effects after skin contact: May cause mild skin irritation. May be harmful in contact with skin.

Symptoms/effects after eye contact: May cause eye irritation.

Symptoms/effects after ingestion: May be harmful 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


Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

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

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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: Clean up any spills as soon as possible, using an absorbent material to collect it.
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
Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container tightly closed.
Incompatible materials: Oxidizing agent.
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
No additional information available

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:
Impervious gloves such as neoprene or nitrile rubber gloves

Eye protection:
Goggles. Contact lenses should not be worn

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Full face NIOSH-certified respirator with APF of 50; organic vapor (black cartridge) is recommended, if air-purifying respirator selected.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Liquid
Appearance: Clear liquid with mild waxy.
Molecular mass: 170.29 g/mol
Colour: No data available
Odour: Citrus rosy character.
Odour threshold: No data available
Refractive index: 1.45
pH: No data available
Relative evaporation rate (butylacetate=1): ~ 1
Melting point: -2 °C
Freezing point: No data available
Boiling point: 245 - 248 °C
Flash point: 125 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapour pressure: < 0.1 mm Hg @ 25°C
Relative vapour density at 20 °C: > 1
## 10-UNDECEN-1-OL

### Safety Data Sheet

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>0.85</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>&lt; 3 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Slightly. Soluble in water.</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>
</tr>
<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>No data available</td>
</tr>
</tbody>
</table>

### 9.2 Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No additional information available

#### 10.2 Chemical stability

Stable.

#### 10.3 Possibility of hazardous reactions

No additional information available

#### 10.4 Conditions to avoid

Heat. Open flame. Sparks.

#### 10.5 Incompatible materials

Oxidizing agent.

#### 10.6 Hazardous decomposition products

Organic acid vapors.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Acute toxicity**: Not classified

<table>
<thead>
<tr>
<th>10-Undecen-1-ol (112-43-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 oral mouse</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**: Not classified

Skin Irritation - rabbit: 500 mg/24H: mild irritant effect; RTECS Number: YQ2985000

**Serious eye damage/irritation**: Not classified

**Respiratory or skin sensitisation**: Not classified

**Germ cell mutagenicity**: Not classified

Bacterial screening (Ames Test) show the substance not to be a mutagen.

**Carcinogenicity**: Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

**Reproductive toxicity**: Not classified

**STOT-single exposure**: Not classified

**STOT-repeated exposure**: Not classified

**Aspiration hazard**: Not classified

**Symptoms/effects after inhalation**: No information available.

**Symptoms/effects after skin contact**: May cause mild skin irritation. May be harmful in contact with skin.

**Symptoms/effects after eye contact**: May cause eye irritation.

**Symptoms/effects after ingestion**: May be harmful if swallowed.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Acute aquatic toxicity**: Not classified

**Chronic aquatic toxicity**: Not classified
### 12.2. Persistence and degradability
No additional information available

### 12.3. Bioaccumulative potential
No additional information available

### 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
No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Category</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage disposal</td>
<td>Do not dispose of waste into sewer.</td>
</tr>
<tr>
<td>Product/Packaging disposal</td>
<td>Incinerate. Dispose in a safe manner in accordance with local/national regulations.</td>
</tr>
<tr>
<td>Ecology - waste materials</td>
<td>Avoid release to the environment.</td>
</tr>
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</table>

## SECTION 14: Transport information

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

<table>
<thead>
<tr>
<th>Category</th>
<th>UN No. (ADR)</th>
<th>UN No. (IMDG)</th>
<th>UN No. (IATA)</th>
<th>UN No. (ADN)</th>
<th>UN No. (RID)</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
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</table>

### 14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>Category</th>
<th>UN No. (ADR)</th>
<th>UN No. (IMDG)</th>
<th>UN No. (IATA)</th>
<th>UN No. (ADN)</th>
<th>UN No. (RID)</th>
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</thead>
<tbody>
<tr>
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<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (IMDG)</td>
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<td>Not applicable</td>
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<td>Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (IATA)</td>
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<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (ADN)</td>
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<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (RID)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>Category</th>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
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<tbody>
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<tr>
<td>Transport hazard class(es) (IMDG)</td>
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<td>Transport hazard class(es) (IATA)</td>
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<tr>
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<tr>
<td>Transport hazard class(es) (RID)</td>
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<td></td>
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</tbody>
</table>

### 14.4. Packing group

<table>
<thead>
<tr>
<th>Category</th>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Packing group (RID)</td>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10-UNDECEN-1-OL
Safety Data Sheet

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant          : No
Other information       : No supplementary information available

14.6. Special precautions for user
- Overland transport
  Not applicable
- Transport by sea
  Not applicable
- Air transport
  Not applicable
- Inland waterway transport
  Not applicable
- Rail transport
  Not applicable

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
10-UNDECEN-1-OL is not on the REACH Candidate List
10-UNDECEN-1-OL is not on the REACH Annex XIV List

% Volatiles : < 3 %

15.1.2. National regulations

Germany
Reference to AwSV: Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to VwVwS, Annex 3; ID No. 5709)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijst van kankerverwekkende stoffen : 10-UNDECEN-1-OL is listed
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 – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

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:
EUH210 Safety data sheet available on request.

SDS EU (REACH Annex II) - Custom

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