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-3,4-DIMETHOXYBENZENE
Product code: ENEA0075
Formula: C11H14O2
Synonyms: METHYLEUGENOL, EUGENYL METHYL ETHER, 1,3,4-EUGENOL METHYL ETHER, 1,2-DIMETHOXY-4-ALLYLBENZENE
Chemical family: ORGANIC

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@gelest.com - www.gelest.com

GELEST INC.
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106 - 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]
Acute toxicity (oral), Category 4 H302
Carcinogenicity, Category 1B H350
Specific target organ toxicity — Repeated exposure, Category 2 H373
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): 

Signal word (CLP): Danger
Hazard statements (CLP) : H302 - Harmful if swallowed.  
H350 - May cause cancer.  
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (CLP) : P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P264 - Wash hands thoroughly after handling.  
P330 - Rinse mouth.  
P301+P312 - IF SWALLOWED: Call a doctor if you feel unwell.

2.3. Other hazards  
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances  
Substance type : Mono-constituent  
Name : ALLYL-3,4-DIMETHOXYBENZENE  
CAS-No. : 93-15-2  
EC-No. : 202-223-0

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC No. 1272/2008 [CLP])</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allyl-3,4-dimethoxybenzene</td>
<td>(CAS-No.) 93-15-2</td>
<td>95 - 100</td>
<td>Acute Tox. 4 (Oral), H302, Carc. 1B, H350, STOT RE 2, H373</td>
</tr>
</tbody>
</table>

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 : May cause damage to organs through prolonged or repeated exposure.  
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.  
Symptoms/effects after skin contact : May cause skin irritation. May be harmful in contact with skin.  
Symptoms/effects after eye contact : May cause eye irritation.  
Symptoms/effects after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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.
ALLYL-3,4-DIMETHOXYBENZENE
Safety Data Sheet

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only in well ventilated areas.
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. Store locked up.
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:
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:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.
### SECTION 9: Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>178.23 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear to straw.</td>
</tr>
<tr>
<td>Odour</td>
<td>Distinct. Carnation-like.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No additional information available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Melting point</td>
<td>-4 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>254 - 255 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>110 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 0.1 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.035</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>&lt; 3 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble 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

Decomposes when heated above 150°C in the presence of metal salts.

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

Oxidizing agent.

#### 10.6. Hazardous decomposition products

Organic acid vapors, including phenolic compounds.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity: Harmful if swallowed.

**ALLYL-3,4-DIMETHOXYBENZENE (93-15-2)**

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE CLP (oral)</td>
<td>810 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

**Allyl-3,4-dimethoxybenzene (93-15-2)**

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>810 mg/kg RTECS Number: CY2450000</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2025 mg/kg</td>
</tr>
<tr>
<td>LD50 intraperitoneal mouse</td>
<td>540 mg/kg</td>
</tr>
</tbody>
</table>
ALLYL-3,4-DIMETHOXYBENZENE
Safety Data Sheet

** Allyl-3,4-dimethoxybenzene (93-15-2) **

<table>
<thead>
<tr>
<th>ATE CLP (oral)</th>
<th>810 mg/kg bodyweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>May cause cancer.</td>
</tr>
</tbody>
</table>

** Allyl-3,4-dimethoxybenzene (93-15-2) **

| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | 1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen |
| Reproductive toxicity | Not classified |
| STOT-single exposure | Not classified |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | Not classified |
| Potential adverse human health effects and symptoms | Repeated exposure can cause kidney damage. |
| Symptoms/effects after inhalation | May cause irritation to the respiratory tract. |
| Symptoms/effects after skin contact | May cause skin irritation. May be harmful in contact with skin. |
| Symptoms/effects after eye contact | May cause eye irritation. |
| Symptoms/effects after ingestion | Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard. |

### 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 **

Other adverse effects: This substance may be hazardous to the environment.

### SECTION 13: Disposal considerations

** 13.1. Waste treatment methods **

- Sewage disposal recommendations: Do not dispose of waste into sewer.
- Product/Packaging disposal recommendations: Incinerate. Dispose in a safe manner in accordance with local/national regulations.
- 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): Not applicable
- UN-No. (IMDG): Not applicable
- UN-No. (IATA): Not applicable
- UN-No. (ADN): Not applicable
- UN-No. (RID): Not applicable

** 14.2. UN proper shipping name **

- Proper Shipping Name (ADR): Not applicable
- Proper Shipping Name (IMDG): Not applicable
ALLYL-3,4-DIMETHOXYBENZENE
Safety Data Sheet

Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR) : Not applicable

IMDG
Transport hazard class(es) (IMDG) : Not applicable

IATA
Transport hazard class(es) (IATA) : Not applicable

ADN
Transport hazard class(es) (ADN) : Not applicable

RID
Transport hazard class(es) (RID) : Not applicable

14.4. Packing group
Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

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
ALLYL-3,4-DIMETHOXYBENZENE is not on the REACH Candidate List
ALLYL-3,4-DIMETHOXYBENZENE is not on the REACH Annex XIV List
ALLYL-3,4-DIMETHOXYBENZENE 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.
15.1.2. National regulations

**Germany**
- **Reference to AwSV**: Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to VwVwS, Annex 3; ID No. 6535)
- **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**: The substance is not 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

**Denmark**
- **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:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>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</td>
</tr>
</tbody>
</table>

Other information: Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 1B</td>
<td>Carcinogenicity, Category 1B</td>
</tr>
<tr>
<td>Carc. 1B</td>
<td>Carcinogenicity (inhalation) Category 1B</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity — Repeated exposure, Category 2</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>H350i</td>
<td>May cause cancer by inhalation.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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