

## SAFETY DATA SHEET

Version 6.4  
Revision Date 04/12/2022  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : (–)-Linalool

Product Number : 62139  
Brand : Aldrich  
Index-No. : 603-235-00-2  
CAS-No. : 126-91-0

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

Identified uses : Laboratory chemicals, Synthesis of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone**

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Flammable liquids (Category 4), H227  
Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Skin sensitization (Category 1), H317  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Short-term (acute) aquatic hazard (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Signal Word                | Warning                                                                                                                          |
| Hazard statement(s)        |                                                                                                                                  |
| H227                       | Combustible liquid.                                                                                                              |
| H315                       | Causes skin irritation.                                                                                                          |
| H317                       | May cause an allergic skin reaction.                                                                                             |
| H319                       | Causes serious eye irritation.                                                                                                   |
| H335                       | May cause respiratory irritation.                                                                                                |
| H402                       | Harmful to aquatic life.                                                                                                         |
| Precautionary statement(s) |                                                                                                                                  |
| P210                       | Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.                                                              |
| P261                       | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.                                                                            |
| P264                       | Wash skin thoroughly after handling.                                                                                             |
| P271                       | Use only outdoors or in a well-ventilated area.                                                                                  |
| P272                       | Contaminated work clothing must not be allowed out of the workplace.                                                             |
| P273                       | Avoid release to the environment.                                                                                                |
| P280                       | Wear protective gloves/ eye protection/ face protection.                                                                         |
| P302 + P352                | IF ON SKIN: Wash with plenty of soap and water.                                                                                  |
| P304 + P340 + P312         | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.      |
| P305 + P351 + P338         | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313                | If skin irritation or rash occurs: Get medical advice/ attention.                                                                |
| P337 + P313                | If eye irritation persists: Get medical advice/ attention.                                                                       |
| P362                       | Take off contaminated clothing and wash before reuse.                                                                            |
| P370 + P378                | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.                                             |
| P403 + P233                | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P403 + P235                | Store in a well-ventilated place. Keep cool.                                                                                     |
| P405                       | Store locked up.                                                                                                                 |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.                                                              |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                          |
|------------------|------------------------------------------|
| Synonyms         | : (R)-(-)-3,7-Dimethyl-1,6-octadien-3-ol |
| Formula          | : C <sub>10</sub> H <sub>18</sub> O      |
| Molecular weight | : 154.25 g/mol                           |
| CAS-No.          | : 126-91-0                               |
| EC-No.           | : 204-811-2                              |
| Index-No.        | : 603-235-00-2                           |

| Component                                 | Classification                                            | Concentration |
|-------------------------------------------|-----------------------------------------------------------|---------------|
| <b>(R)-3,7-Dimethyl-1,6-octadien-3-ol</b> |                                                           |               |
|                                           | Flam. Liq. 4; Skin Irrit. 2;<br>Eye Irrit. 2A; Skin Sens. | <= 100 %      |

|  |                                                                         |  |
|--|-------------------------------------------------------------------------|--|
|  | 1; STOT SE 3; Aquatic<br>Acute 3; H227, H315,<br>H319, H317, H335, H402 |  |
|--|-------------------------------------------------------------------------|--|

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## 5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

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

#### Storage conditions

Tightly closed.

#### Storage class

Storage class (TRGS 510): 10: Combustible liquids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### Body Protection

protective clothing

#### Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                                                                           |
|-------------------------------------------------|---------------------------------------------------------------------------|
| a) Appearance                                   | Form: liquid<br>Color: colorless                                          |
| b) Odor                                         | No data available                                                         |
| c) Odor Threshold                               | No data available                                                         |
| d) pH                                           | No data available                                                         |
| e) Melting point/freezing point                 | Freezing point: < 70 °C (< 158 °F) at 1,013 hPa - OECD Test Guideline 102 |
| f) Initial boiling point and boiling range      | 198 °C 388 °F - lit.                                                      |
| g) Flash point                                  | ca.74.6 °C (166.3 °F) at ca.1,013 hPa - closed cup                        |
| h) Evaporation rate                             | No data available                                                         |
| i) Flammability (solid, gas)                    | No data available                                                         |
| j) Upper/lower flammability or explosive limits | No data available                                                         |
| k) Vapor pressure                               | ca.122 hPa at ca.20 °C (ca.68 °F)                                         |
| l) Vapor density                                | No data available                                                         |
| m) Density                                      | 0.862 g/cm <sup>3</sup> at 20 °C (68 °F) - lit.                           |
| Relative density                                | No data available                                                         |
| n) Water solubility                             | ca.1.22 g/l at 20 °C (68 °F) - OECD Test Guideline 105 - soluble          |

- o) Partition coefficient: log Pow: 2.7 at 25 °C (77 °F) - Bioaccumulation is not expected.  
n-octanol/water
- p) Autoignition temperature No data available
- q) Decomposition temperature No data available
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties none

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - female - > 2,000 mg/kg

(OECD Test Guideline 423)

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

Skin - human keratinocytes

Result: Skin irritation - 1 h

(OECD Test Guideline 439)

#### Serious eye damage/eye irritation

No data available

**Respiratory or skin sensitization**

In vitro study

Result: positive

(OECD Test Guideline 442D)

**Germ cell mutagenicity**

No data available

Test Type: reverse mutation assay

Test system: *S. typhimurium*

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

**Carcinogenicity**

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

RTECS: RG5800000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates      static test EC50 - *Daphnia magna* (Water flea) - ca. 51.86 mg/l - 48 h  
(OECD Test Guideline 202)

Toxicity to algae      static test ErC50 - *Pseudokirchneriella subcapitata* (green algae) - 191.82 mg/l - 72 h  
(OECD Test Guideline 201)

**12.2 Persistence and degradability**

Biodegradability      aerobic - Exposure time 28 d  
Result: 84 % - Readily biodegradable.  
(OECD Test Guideline 301B)

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14: Transport information

#### DOT (US)

NA-Number: 1993    Class: NONE    Packing group: III  
Proper shipping name: Combustible liquid, n.o.s. ((R)-3,7-Dimethyl-1,6-octadien-3-ol)  
Reportable Quantity (RQ):  
Poison Inhalation Hazard: No

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

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## SECTION 15: Regulatory information

#### SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

#### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

## Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

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### SECTION 16: Other information

#### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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