

SAFETY DATA SHEET

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| Precautionary statements | <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> |
| Contains | PIN-2(3)-ENE (ALPHA-PINENES), LIMONENE, GERANIOL |
| Supplementary precautionary statements | <p>P233 Keep container tightly closed.</p> <p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P261 Avoid breathing vapour/spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P331 Do NOT induce vomiting.</p> <p>P332+P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P391 Collect spillage.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p> |

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
|------------------------------|---|
| LINALOOL | 60-100% |
| CAS number: 78-70-6 | EC number: 201-134-4 |
| Classification | Classification (67/548/EEC or 1999/45/EC) Xi; R36/38 |
| Skin Irrit. 2 - H315 | |
| Eye Irrit. 2 - H319 | |
| PIN-2(3)-ENE (ALPHA-PINENES) | 10-30% |
| CAS number: 80-56-8 | EC number: 201-291-9 |
| M factor (Acute) = 1 | M factor (Chronic) = 1 |

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| Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 | Classification (67/548/EEC or 1999/45/EC) Xn; R65. Xi; R38. N; R50/53. R43, R10 |
| CAMPHOR CAS number: 76-22-2 EC number: 200-945-0 | 5-10% |
| Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H332 STOT SE 2 - H371 | Classification (67/548/EEC or 1999/45/EC) Xn; R68/22, R20/22. R10 |
| LIMONENE CAS number: 138-86-3 EC number: 205-341-0 M factor (Acute) = 1 M factor (Chronic) = 1 | 1-5% |
| Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 | Classification (67/548/EEC or 1999/45/EC) Xn; R65. Xi; R38. N; R50/53. R10, R43 |
| GERANIOL CAS number: 106-24-1 EC number: 203-377-1 | 1-5% |
| Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317 | Classification (67/548/EEC or 1999/45/EC) Xi; R41, R38. R43 |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

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| Inhalation | Move affected person to fresh air at once. Get medical attention if any discomfort continues. |
| Ingestion | Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention immediately. |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing. |
| Eye contact | Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |

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

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| General information | Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. See Section 11 for additional information on health hazards. |
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4.3. Indication of any immediate medical attention and special treatment needed

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| Notes for the doctor | No specific recommendations. |
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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| Suitable extinguishing media | Extinguish with the following media: Foam, carbon dioxide or dry powder. |
| Unsuitable extinguishing media | Water. |

5.2. Special hazards arising from the substance or mixture

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|------------------|-------------------------|
| Specific hazards | Toxic gases or vapours. |
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5.3. Advice for firefighters

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| Protective actions during firefighting | Containers close to fire should be removed or cooled with water. |
| Special protective equipment for firefighters | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| Personal precautions | Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. No smoking, sparks, flames or other sources of ignition near spillage. |
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6.2. Environmental precautions

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| Environmental precautions | Do not discharge into drains or watercourses or onto the ground. |
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6.3. Methods and material for containment and cleaning up

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| Methods for cleaning up | Keep combustible materials away from spillage. Eliminate all sources of ignition. Provide adequate ventilation. Contain and absorb spillage with sand, earth or other non-combustible material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Wash thoroughly after dealing with a spillage. |
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6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Usage precautions | Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothing. |
| Advice on general occupational hygiene | Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. |

7.2. Conditions for safe storage, including any incompatibilities

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|---------------------|--|
| Storage precautions | Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Protect from freezing and direct sunlight. |
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7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters Occupational exposure limits

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Long-term exposure limit (8-hour TWA): WEL 2 ppm 13 mg/m³

Short-term exposure limit (15-minute): WEL 3 ppm 19 mg/m³

WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

Hygiene measures

No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Respiratory protection

No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

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SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

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| Appearance | Clear liquid. |
| Colour | Colourless to pale yellow. |
| Odour | Characteristic. |
| Flash point | 59°C |
| Relative density | ~ 0.870 @ 20°C |

9.2. Other information

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| Refractive index | ~ 1.467 @ 20°C |
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SECTION 10: Stability and reactivity

10.1. Reactivity 10.2. Chemical stability

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| Stability | Stable at normal ambient temperatures. |
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10.3. Possibility of hazardous reactions

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|------------------------------------|----------------------|
| Possibility of hazardous reactions | Will not polymerise. |
|------------------------------------|----------------------|

10.4. Conditions to avoid

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|---------------------|---|
| Conditions to avoid | Avoid heat, flames and other sources of ignition. |
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10.5. Incompatible materials

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|--------------------|--|
| Materials to avoid | Strong oxidising agents. Strong acids. Strong alkalis. |
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10.6. Hazardous decomposition products

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| Hazardous decomposition products | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. |
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SECTION 11: Toxicological information

11.1. Information on toxicological effects Acute toxicity - oral

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|------------------|-----------|
| ATE oral (mg/kg) | 21,833.33 |
|------------------|-----------|

Acute toxicity - inhalation

| | |
|-----------------------------------|-------|
| ATE inhalation (dusts/mists mg/l) | 16.83 |
|-----------------------------------|-------|

| | |
|--------------|--|
| Ingestion | May be fatal if swallowed and enters airways. |
| Skin contact | May cause an allergic skin reaction. Causes skin irritation. |
| Eye contact | Causes serious eye damage. |

Toxicological information on ingredients.

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Acute toxicity - oral

| | |
|--|---------|
| Acute toxicity oral (LD ₅₀ mg/kg) | 1,310.0 |
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| | |
|--------------------------------------|---------|
| Species | Mouse |
| ATE oral (mg/kg) | 1,310.0 |
| <u>Acute toxicity - inhalation</u> | |
| ATE inhalation (dusts/mists mg/l) | 1.01 |

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Ecological information on ingredients.

LIMONENE

| | |
|---------------------------------|-------------------------------|
| <u>Acute aquatic toxicity</u> | |
| LE(C) ₅₀ | 0.1 < L(E)C ₅₀ ≤ 1 |
| M factor (Acute) | 1 |
| <u>Chronic aquatic toxicity</u> | |
| M factor (Chronic) | 1 |

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

14.1. UN number

| | |
|------------------|------|
| UN No. (ADR/RID) | 1169 |
| UN No. (IMDG) | 1169 |
| UN No. (ICAO) | 1169 |
| UN No. (ADN) | 1169 |

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14.2. UN proper shipping name

Proper shipping name EXTRACTS, AROMATIC, LIQUID (ADR/RID)

Proper shipping name EXTRACTS, AROMATIC, LIQUID (CONTAINS LIMONENE) (IMDG)

Proper shipping name (ICAO) EXTRACTS, AROMATIC, LIQUID

Proper shipping name (ADN) EXTRACTS, AROMATIC, LIQUID

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-E, S-D

ADR transport category 3

Emergency Action Code 3Y

Hazard Identification Number 30
(ADR/RID)

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

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SECTION 15: Regulatory information

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

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|----------------|--|
| EU legislation | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). |
| Guidance | Workplace Exposure Limits EH40. |

15.2. Chemical safety assessment

SECTION 16: Other information

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|--|---|
| Key literature references and sources for data | European Chemicals Agency, http://echa.europa.eu/ |
| Issued by | Regulatory Manager |
| Revision date | 15/01/2016 |
| Revision | 0 |
| Risk phrases in full | R10 Flammable. R20/22 Harmful by inhalation and if swallowed. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R41 Risk of serious damage to eyes. R43 May cause sensitisation by skin contact. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R68/22 Harmful: possible risk of irreversible effects if swallowed. |
| Hazard statements in full | H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H371 May cause damage to organs (Central nervous system, Kidneys) if swallowed. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. |

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.