

1. Product and Company Identification

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Product Name: TERPINEOL
Part Number: RXSOL-67-6706-025

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

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2. Composition / Information on ingredients

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| Chemical Name | Cas No | EC No | Wheight | Formula |
| Terpineol (mixture of isomers) for synthesis | 8000-41-7 | 232-268-1 | 154,25 g/mol | C ₁₀ H ₁₈ O |

3. Hazards Identification

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| Signal Word | Danger |
| Hazard Statements | H300 + H310 Fatal if swallowed or in contact with skin. |
| Precautionary statements | P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/ protective clothing. P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor. |
| Classification of the substance or mixture | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |
| Supplemental Hazard Statements | None |
| Other hazards | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |

4. First Aid Measures

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| General advice | Show this material safety data sheet to the doctor in attendance. |
| If inhaled | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| Eye Contact | After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses. |
| Swallowed | After swallowing: immediately make victim drink water (two glasses at most). Consult a physician. |
| Skin Contact | In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| Inhalation | fresh air. |

Ingestion

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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

No data available

5. Fire-fighting Measures

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Flammability

Suitable extinguishing media

Unsuitable extinguishing media

Special hazards arising from the substance or mixture

Further information

Hazardous combustion products

Advice for firefighters

Protective Equipment

Specific Hazards Arising from the Chemical

May be combustible at high temperature.

Carbon dioxide (CO₂) Foam Dry powder

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

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

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Fire may cause the evolution of Sulphur oxides, nitrogen oxides.

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

Use personal protective equipment.

Has a fire-promoting effect due to the release of oxygen.

Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures

Spillage

Personal Protection

Environmental Precaution

Methods and materials for containment and cleaning

Reference to other sections

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas if needed. Eliminate all ignition sources. Call for assistance on disposal.

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.

Do not let product enter drains.

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.

For disposal see section 13.

7. Handling and Storage

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Advice on protection against fire and explosion

Incompatible materials

Hygiene measures

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. For precautions see section 2.2.

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| Advice on safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. |
| Conditions for safe storage, including any incompatibilities | Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Moisture sensitive. |
| Storage conditions | Tightly closed. Recommended storage temperature see product label. |
| Storage class | Storage class (TRGS 510): 10: Combustible liquids |
| Specific end use(s) | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated |
| Advice on general occupational hygiene | Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance. |

8. Exposure controls and personal protection

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| Exposure controls | No specific additional engineering controls are required. Provide good natural or artificial ventilation. |
| Engineering Control | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |
| 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 |
| Skin protection | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 480 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other |
| 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. Recommended Filter type: Filter type ABEK The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. |
| Other Protection Measure | Handle in accordance with good industrial hygiene and safety practice. |
| Control of environmental exposure | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |

9. Physical and chemical properties

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| Physical state | solid, liquid |
| Colour | Colorless |
| Odour | No data available |
| Odor Threshold | Not Applicable |
| pH | No data available |
| Melting Point | 15 - 35 °C |
| Boiling Point | 217 - 218 °C at 1.013 hPa |
| Flash Point | No data available |
| Evaporation Rate | Not Applicable |
| Flammability (solid, gas) | No data available |
| Explosive limits | No Data Available |

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| Upper/lower flammability or explosive limits | No data available |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| Vapour pressure | No data available |
| Viscosity | No data available |
| Density | 0,969 g/cm3 at 15 °C |
| Relative Density | No data available |
| Specific Gravity | No data available |
| Partition coefficient | No data available |
| Explosive properties | No data available |
| Solubility | No data available |
| Ignition temperature | No information available. |
| Particle characteristics | No data available |

10. Stability and reactivity

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| Reactivity | No data available |
| Chemical stability | The product is chemically stable under standard ambient conditions (room temperature) . |
| Possibility of hazardous reactions | Violent reactions possible with: Bases acids Strong oxidizing agents |
| Conditions to avoid | Heat, flames and sparks. |
| Incompatible materials | No data available |
| Hazardous decomposition products | In the event of fire: see section 5 |

11. Toxicological information

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| Acute toxicity | LD50 Oral - Rat - male - 4.300 mg/kg (OECD Test Guideline 401) The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol) Inhalation: No data available LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402) The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol) |
| Skin corrosion/irritation | Skin - Rabbit Result: irritating - 4 h (OECD Test Guideline 404) The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol) |
| Serious eye damage/irritation | Eyes - Rabbit Result: Eye irritation - 24 h (OECD Test Guideline 405) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol)The value is given in analogy to the following substances: Fir oil |
| Respiratory or skin sensitization | Local lymph node assay (LLNA) - Guinea pig Result: negative (Regulation (EC) No. 440/2008, Annex, B.42 (LLNA)) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: terpineol (p-menth-1-en-8-ol) |
| Carcinogenicity | No data available |
| Germ cell mutagenicity | Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative |
| Reproductive toxicity | Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative |
| Specific target organ toxicity - single exposure | No data available |
| Additional Information | No data available |
| | To the best of our knowledge, the chemical, physical, and toxicological |

12. Ecological information

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| Persistence and degradability | No data available |
| Toxicity to fish | Static test LC50 - Oncorhynchus mykiss (rainbow trout) - 75 mg/l - 96 h (OECD Test Guideline 203) |
| Toxicity to daphnia and other aquatic invertebrates | Static test EC50 - Daphnia magna (Water flea) - 42,81 mg/l - 48 h (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid |
| Toxicity | Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.520 mg/l - 96 h |
| Toxicity to bacteria | EC10 - Bacteria - 14 mg/l - 72 h Remarks: (Lit.) EC5 - E.coli - 15.000 mg/l Remarks: (Lit.) (maximum permissible toxic concentration) |
| Toxicity to algae | Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 74,35 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid |
| Products Biodegradation | The methods for determining the biological degradability are not applicable to inorganic substances. |
| Mobility in soil | No data available |
| Results of PBT and vPvB assessment | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |
| Endocrine disrupting properties | No data available |
| Other adverse effects | No data available . |

13. Disposal considerations

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| Product | Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. |
| Contaminated packaging | Dispose of as unused product. |
| Waste treatment Method | See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions. |

14. Transport information

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| UN number | ADR/RID:2404 IMDG:2404 IATA: 2404 |
| UN proper shipping name | ADR/RID:PROPIONITRILE IMDG:PROPIONITRILE IATA:PROPIONITRILE |
| Transport hazard class(es) | ADR/RID: 3 (6.1) IMDG: 3 (6.1) IATA:3 (6.1) |
| Packaging group | ADR/RID: II IMDG: II IATA:II |
| Environmental hazards | ADR/RID: No IMDG: No IATA: No |
| Special precautions for user | No data available |
| Further information | Not classified as dangerous in the meaning of transport regulations. |

15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the

This material safety data sheet complies with the requirements of

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| substance or mixture | Regulation (EC) No. 1907/2006. |
| Other regulations | Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work. |
| Chemical Safety Assessment | For this product a chemical safety assessment was not carried out |

16. Other information

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Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.