

1. Product and Company Identification

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Product Name Glycerine Glycerol
Part Number RXSOL-14-1197-250

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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Website www.rxmarine.com

2. Composition / Information on ingredients

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| Chemical Name | Cas No | EC No | Weight | Formula |
|---------------|---------|-----------|-------------|--|
| Glycerol | 56-81-5 | 200-289-5 | 92,09 g/mol | C ₃ H ₈ O ₃ |

3. Hazards Identification

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| Signal Word | No data available |
| Hazard Statements | No data available |
| Precautionary statements | No data available |
| Classification of the substance or mixture | No data available |
| Supplemental Hazard Statements | No data available |
| 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 | After inhalation fresh air. Immediately call in physician. |
| Eye Contact | After eye contact rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses. |
| Swallowed | After swallowing make victim drink water (two glasses at most). Consult doctor if feeling unwell. |
| Skin Contact | In case of skin contact Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician. |
| Inhalation | No data available |
| Ingestion | No data available |
| Most important symptoms and effects, both acute and delaye | The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 |
| Indication of any immediate medical attention and special treatment needed | No data available |

5. Fire-fighting Measures

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| Flammability | No data available |
| Suitable extinguishing media | Water Foam Carbon dioxide (CO2) Dry powder |
| Unsuitable extinguishing media | For this substance/mixture no limitations of extinguishing agents are given |
| Special hazards arising from the substance or mixture | Carbon oxides Combustible. Fire may cause evolution of: Acrolein 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.. |
| Further information | Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Hazardous combustion products | No data available |
| Advice for firefighters | In the event of fire, wear self-contained breathing apparatus.. |
| Protective Equipment | No data available |
| Specific Hazards Arising from the Chemical | No data available |

6. Accidental Release Measures

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| 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. |
| Spillage | No data available |
| Personal Protection | No data available |
| Environmental Precaution | Do not let product enter drains. Risk of explosion. |
| Methods and materials for containment and cleaning | 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. Chemisorb®). Dispose of properly. Clean up affected area |
| Reference to other sections | For disposal see section 13 |

7. Handling and Storage

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| Advice on protection against fire and explosion | No data available |
| Incompatible materials | No data available |
| Hygiene measures | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2 |
| Advice on safe handling | Work under hood. Do not inhale substance/mixture. |
| Conditions for safe storage, including any incompatibilities | No data available |
| 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 | No data available |

8. Exposure controls and personal protection

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| Exposure controls | Personal protective equipment |
| Engineering Control | No data available |
| Eye/face protection | Use equipment for eye protection tested and approved under appropriate |

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| Body Protection | government standards such as NIOSH (US) or EN 166(EU). Safety glasses |
| Skin protection | Protective clothing. 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). Splash contact Material: Viton® Minimum layer thickness 0,7 mm Break through time: 60 min Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M) |
| Respiratory protection | Recommended Filter type Filter A-(P3) 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 | No data available |

9. Physical and chemical properties

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| Physical state | Powder |
| Colour | White, brown |
| Odour | Ether-like |
| Odor Threshold | No data available |
| pH | 8,7 |
| Melting Point | 100 - 102 °C |
| Boiling Point | 256 - 258 °C |
| Flash Point | 136 °C - closed cup |
| Evaporation Rate | No data available |
| Flammability (solid, gas) | The product is not flammable. |
| Explosive limits | No data available |
| Upper/lower flammability or explosive limits | Lower explosion limit: 1,5 %(V) |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| Vapour pressure | 0,001 hPa at 20 °C - OECD Test Guideline 104 |
| Viscosity | No data available |
| Density | 0,72 g/cm ³ at 24 °C |
| Relative Density | No data available |
| Specific Gravity | No data available |
| Partition coefficient | Log Pow 0,12 at 25 °C - OECD Test Guideline 107 - Bioaccumulation is not expected. |
| Explosive properties | No data available |
| Solubility | 39,3 g/l at 20 °C - OECD Test Guideline 105 |
| Ignition temperature | No data available |
| Particle characteristics | No data available |

10. Stability and reactivity

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| 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. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. |
| Chemical stability | The product is chemically stable under standard ambient conditions (room temperature) |
| Possibility of hazardous reactions | Violent reactions possible with: Strong oxidizing agents Strong acids Acid anhydrides acid halides |

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| Condition to avoid | Strong heating. |
| Incompatible materials | Strong oxidizing agents |
| Hazardous product composition | No data available |

11. Toxicological information

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| Acute toxicity | Acute toxicity estimate Oral - 100,1 mg/kg (Expert judgment) Remarks: (Regulation (EC) No 1272/2008, Annex VI) LC50 Inhalation - Rat - male - 4 h - 3,6 mg/l - dust/mist Remarks: (Regulation (EC) No 1272/2008, Annex VI) Acute toxicity estimate Dermal - 1.100,1 mg/kg (Expert judgment) (Regulation (EC) No 1272/2008, Annex VI) LDLo Dermal - Rabbit - 1.500 mg/kg (RTECS) |
| Skin corrosion/irritation | Skin - Rabbit No skin irritation - 4 h (OECD Test Guideline 404) |
| Serious eye damage/irritation | Eyes - Rabbit Eye irritation - 72 h (OECD Test Guideline 405) |
| Respiratory or skin sensitization | Maximization Test - Guinea pig May cause sensitization by skin contact |
| Carcinogenicity | Limited evidence of carcinogenicity in animal studies |
| Germ cell mutagenicity | In vitro tests showed mutagenic effects Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation Metabolic activation Method: OECD Test Guideline 471 Result: positive Micronucleus test Species: Guinea pig Application Route: Intraperitoneal Result: positive (ECHA) |
| Reproductive toxicity | No data available |
| Specific target organ toxicity-single exposure | No data available |
| Additional Information | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 400 mg/kg Exposure can cause numbness, tingling, and weakness in extremities., Nausea, Dizziness, Headache, Central nervous system depression, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

12. Ecological information

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| Persistence and degradability | Biodegradability aerobic - Exposure time 28 d Result: 0 % - Not biodegradable (OECD Test Guideline 301C) |
| Toxicity to fish | Flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 42,9 mg/l - 96 h (ECHA) |
| Toxicity to daphnia and other aquatic invertebrates | Semi-static test EC50 - Daphnia magna (Water flea) - 1,4 mg/l - 48 h Remarks: (ECHA) |
| Toxicity | No data available |
| Toxicity to bacteria | EC50 - Bacteria - 580 mg/l - 3 h (OECD Test Guideline 209) |
| Toxicity to algae | Static test EC50 - Pseudokirchneriella subcapitata - 0,16 mg/l - 96 h (ECHA) |
| Bioaccumulation potential | No data available |
| Mobility in soil | No data available |
| Results of PBT av PvB 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 | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Other adverse effects | Discharge into the environment must be avoided. Further information on ecology Forms toxic mixtures in water, dilution measures notwithstanding |

13. Disposal considerations

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| Product | No data available |
| Contaminated packaging | No data available |
| Waste treatment Method | No data available |

14. Transport information

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| UN number | ADR/RID:1673 | IMDG:1673 | IATA:1673 |
| UN proper shipping name | ADR/RID:PHENYLENEDIAMINE S | IMDG:PHENYLENEDIAMINES | IATA:PHENYLENEDIAMINES |
| Transport hazard classess | ADR/RID:6.1 | IMDG:6.1 | IATA:6.1 |
| Packaging group | ADR/RID:III | IMDG:III | IATA:III |
| Environmental hazards | ADR/RID:Yes | IMDG:Yes | IATA:No |
| Special precautions for user | Tunnel restriction code (E) | | |
| Further information | No data available | | |

15. Regulatory information

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| Safety, health and environmental regulations/legislation specific for the substance or mixture | This material safety data sheet complies with the requirements of 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 | <p>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.</p> <p>DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.</p> |
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