# Material Safety Data Sheet

**HEPTANE** (RXSOL-19-1199-025)

## 1. Product and Company Identifaction

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|---|---|
| Product Name | Heptane |
| Part Number | RXSOL-19-1199-025 |

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

**Stock Point : Mumbai, Kandla, Kolkata, Chennai, Vizag, Fujairah, Muscat Barka**

| | |
|---|---|
| Phone | +91 22 27815540 / 41 / 42 |
| Fax | +91 22 2781 1318 :::AOH :0091 9821214367 |
| Email | 123@rxmarine.com |
| Website | www.rxmarine.com |


## 2. Composition / informationon ingredients

| Name of Substance | Cas Number | EC Num |
|---|---|---|
| N - Heptane | 142-82-5 | 205-563 |

## 3. Hazards Identification

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| Signal Word | Danger |
| Hazard Statements | H225 Highly flammable liquid and vapour.<br>H304 May be fatal if swallowed and enters airways.<br>H315 Causes skin irritation.<br>H336 May cause drowsiness or dizziness.<br>H410 Very toxic to aquatic life with long lasting effects. |
| Precautionary statements - prevention | P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.<br>P240 Ground/bond container and receiving equipment.<br>P273 Avoid release to the environment. |
| Precautionary statements - response | P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.<br>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.<br>Storage<br>P403 + P233 Store in a well-ventilated place. Keep container tightly closed. |

## 4. First Aid Measures

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| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |

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| Inhalation: | Move to fresh air. If not breathing, give artificial respiration. Get medical attention ifm symptoms occur. Risk of serious damage to the lungs. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately. If vomiting occurs naturally, have victim lean forward. |
| Most important symptoms/effects | Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |
| Notes to Physician | Treat symptomatically |

## 5. Fire-fighting Measures

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| Flammability of the Product | Flammable. |
| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray. |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire |
| Flash Point | -4 °C |
| AutoignitionTemperature | 215 °C / 419 °F |
| Explosion Limits Uper | 6.7 % |
| Explosion Limits Lower | 1.05% |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |
| Specific Hazards Arising from the Chemical | Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. |
| Hazardous Combustion Products | Carbon monoxide (CO) Carbon dioxide (CO2) |
| Protective Equipment and Precautions for Firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
| Further Information | Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. |

## 6. Accidental Release Measures

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| Spillage | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area. |
| Personal Protection | Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. |
| Enviromental Precaution | Should not be released into the environment. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system. |
| Methods and materials for containment and cleaning | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment |

## 7. Handling and Storage

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| Handling | Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe vapors or spray mist. Do not ingest. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges. |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area. Corrosives area. |
| Hygiene measures | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. |

## 8. Exposure controls and personal protection

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| Engineering Control | Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location. |
| Personal Protection | **Eye/face Protection** : Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.<br>**Skin and body protection** : Wear appropriate protective gloves and clothing to prevent skin exposure. Long sleeved clothing.Flame retardant antistatic protective clothing.<br>**Respiratory Protection** : Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |
| Exposure Limits | TWA: 100 (ppm) [Canada] TWA: 435 (mg/m3) [Canada] TWA: 434 STEL: 651 (mg/m3) from ACGIH (TLV) [United States]<br>TWA: 100 STEL: 150 (ppm) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits. |



Gloves



Suit

## 9. Physical and chemical properties

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| Physical State | Liquid |
| Colour | Colourless |
| Odour | Petroleum distillates |

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| Odor Threshold | No Information Available |
| pH | Not Applicable |
| Melting Point | -91 °C / -131.8 °F |
| Boiling Point | 98 °C / 208.4 °F |
| Flash Point | -4 °C / 24.8 °F |
| Evaporation Rate | 2.8 (Butyl Acetate = 1.0) |
| Flammability (solid, gas) | Not Applicable |
| Explosive limits | Upper 6.7 vol %<br>Lower 1.05 vol % |
| Vapour pressure | 48 mbar @ 20 °C |
| Vapour Density | 3.5 |
| Secific Gravity | 0.683 |
| Decomposition Temperature | No information available |
| Partition coefficient | No data available |
| Autoignition Temperature | 215 °C / 419 °F |
| Solubility in Water | Not Soluble |
| Viscosity | 0.4 mPa s at 20 °C |
| Molecular Formula | C7 H16 |
| Molecular Weight | 100.20 |

## 10. Stability and reactivity

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| Recativity Hazard | None known, based on information available |
| Stability | Product is stable. |
| Possibility of hazardous reactions | No known hazardous reactions. |
| Conditions to avoid | Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition. |
| Incompatible materials | Strong oxidizing agents, Strong acids, Strong reducing agents |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO2), |
| Hazardous Polymerization | Hazardous polymerization does not occur. Hazardous Reactions None under normal processing |

## 11. Toxicological information

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| Acute toxicity | Component | LD50 Oral | LD50 Dermal |
| | n-Heptane | >2000 mg/kg (rat) | LD50 = 3000 mg/kg ( Rabbit ) |

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| Toxicologically Synergistic | No information available |
| Skin corrosion | Drying-out effect resulting in rough and chapped skin. Mixture causes skin irritation. |
| Toxic Effects on Humans | Acute Potential Health Effects: Skin: Causes skin irritation. Can be absorbed through skin. Eyes: Causes eye irritation. Inhalation: Vapor causes respiratory tract and mucous membrane irritation. |

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| Special Remarks on Chronic Effects on Humans | Detected in maternal milk in human. Passes through the placental barrier in animal. Embryotoxic and/or foetotoxic in animal. May cause adverse reproductive effects (male and femael fertility (spontaneous abortion and fetotoxicity) and birth defects based animal data. |
| Further information<br>After absorption: | Headache, somnolence, Dizziness, euphoria, agitation, spasms, narcosis Effect potentiated by: ethanol<br>Damage to: Kidney, Central nervous system, Liver |

## 12. Ecological information

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| Ecotoxicity | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. |
| COD and BOD 5 | Not Available |
| Persistence and Degradability | Biodegradability<br>70 %; 10 d; aerobic (ECHA) Readily biodegradable<br>Biochemical Oxygen Demand (BOD) 1,920 mg/g (5 d) (IUCLID)<br>Theoretical oxygen demand (ThOD) 3,500 mg/g (Lit.)<br>Ratio BOD/ThBOD<br>BOD5 55 % (Lit.) |
| Mobility in soil | The product is insoluble and floats on water. Is not likely mobile in the environment due its low water solubility. |
| Results of PBT and vPvB assessment | Substance(s) in the mixture do(es) not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII, or a PBT/vPvB assessment was not conducted. |
| Other adverse effects | Henry constant 208678 Pa*m³/mol<br>Method: (calculated) (Lit.) Distribution preferentially in air.<br>Discharge into the environment must be avoided. |

## 13. Disposal considerations

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| Waste treatment Method | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification |

## 14. Transport information

**DOT**

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| UN Number | UN1206 |
| Proper shipping name | N-Heptane |
| Hazard Class | 3 |
| Packing group | II |

**TDG**

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|---|---|
| UN Number | UN1206 |
| Proper shipping name | N-Heptane |
| Hazard Class | 3 |
| Packing group | II |

**IATA**

| | |
|---|---|
| UN Number | UN1206 |
| Proper shipping name | N-Heptane |
| Hazard Class | 3 |
| Packing group | II |

**IMDG/IMO**

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|---|---|
| UN Number | UN1206 |
| Proper shipping name | N-Heptane |
| Hazard Class | 3 |
| Packing group | II |

## 15. Regulatory information

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| Fedral and State Regulation | This product does not contain any DHS chemicals. |
| National legislation | Storage class 3 |
| Chemical safety assessment | For this product a chemical safety assessment was not carried out. |
| Full text of H-Statements | H225 Highly flammable liquid and vapour.<br>H304 May be fatal if swallowed and enters airways.<br>H315 Causes skin irritation.<br>H336 May cause drowsiness or dizziness.<br>H400 Very toxic to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects. |

HMIS

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|---|---|
| Health Hazard | : 3 |
| Fire Hazard | : 3 |
| Reactivity | : 0 |
| Personal Protection | : H |

Fire :

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|---|---|
| Health Hazard | : 3 |
| Fire Hazard | : 3 |
| Reactivity | : 0 |
| Specific Hazard | : .. |

## 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. |