Material Safety Data Sheet

N PENTANE FOR SYNTHESIS (RXSOL-60-6605-121)

1. Product and Company Identifaction

Product Name	RXSOL-60-6605-121
Product Type	n-PENTANE FOR SYNTHESIS
Revised date	

Company Details:

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

Stock Point : Mumbai, Kandla, Chennai, Visakhapatnam, Kolkata, Fujairah, Muscat Barka

Phone	+91 22 27815541 / 42
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Substance / Preparation : N-PENTANE
CAS No :109-66-0
Substance.
Contains no other components or impurities which will influence the classification of the product.

3. Hazards Identification

3.1. Classification of the substance or mixture
Classification EC 67/548 or EC 1999/45
Classification : F+; R12
Xn; R65 R66 R67
N; R51-53
Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)
Health hazards : Specific Target Organ Toxicity -
Single exposure - Narcotic effects - Category 3 - Warning (CLP : STOT SE 3) H336
Aspiration hazard - Category 1 - Danger (CLP : Asp. Tox. 1) H304
Physical hazards : Flammable liquids - Category 1 - Danger (CLP : Flam. Liq. 1) H224
Environmental hazards : Hazardous to the aquatic
environment - Chronic hazard - Category 2 (CLP : Aquatic Chronic 2) H411
3.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s) : F+ : Extremely flammable
N : Dangerous for the environment
Xn : Harmful
R Phrase(s) : R12 : Extremely flammable.
R51/53 : Toxic to aquatic organisms, may cause
long-term adverse effects in the aquatic environment.
R65 : Harmful : may cause lung damage if swallowed.
R66 : Repeated exposure may cause skin dryness or cracking.
R67 : Vapours may cause drowsiness and dizziness.
S Phrase(s) : S9 : Keep container in a well ventilated place.
S16 : Keep away from sources of ignition - No smoking.
S29 : Do not empty into drains.
S33 : Take precautionary measures against static discharges.
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62 : If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.
Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words : Danger
Hazard statements : H224 : Extremely flammable liquid and vapour.

H304 : May be fatal if swallowed and enters airways.
H336 : May cause drowsiness or dizziness.
H411 : Toxic to aquatic life with long lasting effects. Precautionary statements
• Prevention : P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical, ventilating, lighting, …, equipment.
P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.
P280: Wear protective gloves, protective clothing, eye protection, face protection.
P271: Use only outdoors or in a well-ventilated area.
P261: Avoid breathing dust, fume, gas, mist, vapours, spray.
P273: Avoid release to the environment.
P233: Keep container tightly closed.
• Response : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.
P391: Collect spillage. P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378: In case of fire: Use for extinction.
• Storage : P403+P233: Store in well-ventilated place. Keep container tightly closed.
P403+P235: Store in well-ventilated place. Keep cool
. P405: Store locked up.
• Disposal considerations : P501: Dispose of this material and its container to hazardous
or special waste collection point, in accordance with local, regional, national and/or international regulation.
3.3. Other hazards
Other hazards : The substance does not fulfil the criteria to be identified as PBT
substance or vPvB substance according to Annex XIII of Regulation REACH.

4. First Aid Measures

4.1. Description of first aid measures
Inhalation : Call a POISON CENTER or doctor if you feel unwell.
Remove to fresh air and keep at rest in a position comfortable for breathing.
Skin contact : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist
. Ingestion : Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms relating to use : May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness. Repeated exposure may cause skin dryness or cracking.
4.3. Indication of any immediate medical attention and special treatment needed
General information : Never give anything by mouth to an unconscious person.
If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting Measures

5.1. Extinguishing media
Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.
5.2. Special hazards arising from the substance or mixture
Flammable class : Extremely flammable liquid and vapour.
Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
5.3. Advice for fire-fighters
Protection against fire : Do not enter fire area without proper protective equipment,
including respiratory protection. Special procedures : Exercise caution when fighting
any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
For emergency responders : Equip cleanup crew with proper protection. Ventilate area.
Avoid breathing dust, fume, gas, mist, vapours, spray.
Technical measures : Use special care to avoid static electric charges.
Special precautions : Remove ignition sources. No
naked lights. No smoking.
For non-emergency personnel : Evacuate unnecessary personnel.
6.2. Environmental precautions
Environmental precautions : Prevent entry to sewers and public waters.
Notify authorities if product enters sewers or public waters. Avoid release to the environment.
6.3. Methods and material for containment and cleaning up
Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous
earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other sections
See section 8. Exposure controls/personal protection

7. Handling and Storage

7.1. Precautions for safe handling
Handling : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.
Handle empty containers with care because residual vapours are flammable.
Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge.
Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.
Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools.
Use explosion-proof electrical, ventilating, lighting, …, equipment. Special precautions : No naked lights. No smoking.
Avoid breathing dust, fume, gas, mist, vapours, spray.
7.2. Conditions for safe storage, including any incompatibilities
Storage : Keep only in the original container in a cool, well ventilated place.
Keep in fireproof place. Ground/bond container and receiving equipment.
Keep container tightly closed.
Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.
7.3. Specific end use(s)
Specific end use(s) : None.

8. Exposure controls and personal protection

8.1. Exposure controls
Personal protection : Avoid all unnecessary exposure.
• Respiratory protection : Where exposure through inhalation may occur from use,
respiratory protection equipment is recommended. Wear respiratory protection.
• Hand protection : Wear protective gloves.
• Eye protection : Chemical goggles or safety glasses.
• Others : When using, do not eat, drink or smoke.
8.2. Control parameters
Occupational Exposure Limits : No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state at 20 °C : Liquid.
Odour threshold : No data available.
pH value : No data available.
Melting point [°C] : -130 °C
Decomposition point [°C] : N/A
Critical temperature [°C] : N/A
Auto-ignition temperature [°C] : 260°C
Flammability (solid, gas) : Extremely flammable liquid and vapour.
Flammable. Flash point [°C] : -49°C
Boiling point [°C] : 35 - 36 °C
Initial boiling point [°C] : 35°C
Final boiling point [°C] : 36 °C
Evaporation rate : 28,6
Vapour pressure [20°C] : 579 hPa at 20 °C
Vapour pressure mm/Hg : 514 mm Hg @ 25 deg C
Vapour density : 2,5 Density [g/cm3] : 0,62
Relative density, gas (air=1) : N/A
Relative density, liquid (water=1) : N/A
Solubility in water [% weight] : 0.04% at 20°C
Solubility in water : N/A
Log Pow octanol / water at 20°C : No data available.
Solubility : N/A
Viscosity at 40°C [mm2/s] : N/A
9.2. Other information
Explosive properties : N/A
Explosion limits - upper [%] : 8,30%
Explosion limits - lower [%] : 1,40%
Oxidising properties : No data available.

10. Stability and reactivity

10.1. Reactivity
Reactivity : Not established.
10.2. Chemical stability

Chemical stability : Stable under
recommended storage conditions.
10.3. Possibility of hazardous reactions
Hazardous reactions : Not established
. 10.4. Conditions to avoid
Conditions to avoid : Direct sunlight.
Extremely high or low temperatures. Sparks
. Heat. Overheating. Open flame.
10.5. Incompatible materials
Materials to avoid : Strong acids. Strong bases.
10.6. Hazardous decomposition products
Hazardous decomposition products : Fumes.
Carbon monoxide. Carbon dioxide. May release flammable gases.

11. Toxicological information

11.1. Information on toxicological effects Acute toxicity
• Inhalation : May be fatal if swallowed and enters airways.
• Dermal : Based on available data, the classification criteria are not met.
• Ingestion : May be fatal if swallowed and enters airways.
Corrosion : Based on available data, the classification criteria are not met.
Irritation : Repeated exposure may cause skin dryness or cracking.
Sensitization : Based on available data, the classification criteria are not met.
Mutagenicity : Based on available data, the classification criteria are not met
. Carcinogenicity : Based on available data, the classification criteria are not met.
Toxic for reproduction : Based on available data, the classification criteria are not met.
STOT-single exposure : May cause drowsiness or dizziness.
STOT-repeated exposure : Based on available data, the classification criteria are not met.
Aspiration hazard : May be fatal if swallowed and enters airways.

12. Ecological information

12.1. Toxicity
Toxicity information : Toxic to
aquatic life with long lasting effects.
12.2. Persistence - degradability
Persistence - degradability : May cause
long-term adverse effects in the environment.
12.3. Bioaccumulative potential
Bioaccumulative potential : Not established.
12.4. Mobility in soil
Mobility in soil : Not established.
12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment : The substance does not
fulfil the criteria to be identified as PBT substance or vPvB substance
according to Annex XIII of Regulation REACH.
12.6. Other adverse effects
Environmental precautions : Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods
General : Avoid release to the environment.
Dispose in a safe manner in accordance with local/national regulations.
Dispose of this material and its container to hazardous or special waste
collection point, in accordance with local, regional, national and/or international
regulation. Special precautions : Handle empty containers with care because
residual vapours are flammable. Hazardous waste due to toxicity.

14. Transport information

14.1. Land transport (ADR-RID)
Proper shipping name : PENTANES, liquid
UN N° : 1265
H.I. nr : 33
ADR - Class : 3
Labelling - Transport : 3 : Flammable liquid.
ADR - Classification code : F1

ADR - Group : II
ADR - Packing instructions : P001
ADR - Limited Quantity : 1 L
ADR - Tunnel code : D/E : Bulk or tank
carriage: Passage forbidden through tunnels of category D and E.
Other carriage: Passage forbidden through tunnels of category E.
14.2. Sea transport (IMDG) [English only]
Proper shipping name : PENTANES, liquid
UN N° : 1265
IMO-IMDG - Class or division : 3 : Flammable liquid.
IMO-IMDG - Packing group : II
IMO- IMDG - Packing instructions : P001
IMO-IMDG - Limited quantities : 1 L
IMO-IMDG - Marine pollution : Yes
EMS-Nr : F-E S-D
14.3. Air transport (ICAO-IATA) [English only]
Proper shipping name : PENTANES, liquid
UN N° : 1265
IATA - Class or division : 3 : Flammable liquid.
IATA - Packing group : II
IATA - Passenger and Cargo Aircraft : ALLOWED -
Passenger and Cargo - Packing : 353
instruction - Passenger and Cargo - Maximum : 5 L
Quantity/Packing
IATA - Cargo only : ALLOWED -
Cargo only - Packing instruction : 364 -
Cargo only - Maximum Quantity/ : 60 L
Packing IATA - Limited Quantites : 1 L
ERG-Nr : 3H

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Safety, health and environmental : Ensure all national/local regulations are observed.
regulations/legislation specific for the substance or mixture
REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.
15.2. Chemical Safety Assessment
Chemical Safety Assessment : It has not been carried out.

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 Further information : None. In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 1272/2008 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.