# Material Safety Data Sheet

**Propylene Glycol Normal Propyl Ether (PNP)** (RXSOL-60-6260-100)

## 1. Product and Company Identifaction

| | |
|---|---|
| Product Name | RXSOL-60-6260-100 |
| Product Type | Propylene Glycol Normal Propyl Ether (PNP) |

**Company Details:**

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

| | |
|---|---|
| Phone | +91 22 65113333 / 5555 / 9999 |
| Fax | +91 22 2781 1318 :::AOH :0091 9821214367 |
| Email | mail@rxmarine.com |


## 2. Composition / informationon ingredients

**Substances**
Name : PNP

CAS No. : 1569-01-3

| Name | Product Identifier | % (w/w) | GHS-US classification |
|---|---|---|---|
| 2-Propanol, 1-propoxy- | (CAS No.) 1569-01-3 | 100 | Flam. Liq. 3, H226<br>Eye Irrit. 2A, H319<br>STOT SE 3, H336<br>STOT SE 3, H335 |

## 3. Hazards Identification

**Classification Of The Substance Or Mixture**

**GHS-US classification**
Flam. Liq. 3 H226
Eye Irrit. 2A H319
STOT SE 3 H335
STOT SE 3 H336

**Label Elements**

**GHS-US labeling**
**Hazard pictograms (GHS-US) :** GHS02 GHS07

**Signal word (GHS-US) :** Warning

**Hazard statements (GHS-US) :**

H226 - Flammable liquid and vapour

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

**Precautionary statements (GHS-US) :**

P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, lighting, ventilating equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P261 - Avoid breathing vapor, spray

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear eye protection, face protection, protective gloves, protective clothing, Respiratory Protection.

P303+P361+P353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P312 - Call a POISON CENTER or doctor if you feel unwell

P337+P313 - If eye irritation persists: Get medical advice/attention,

P370+P378 - In case of fire: Use media appropriate for extinction

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

**Other Hazards**

Not available

**Unknown acute toxicity (GHS US)** Not available

## 4. First Aid Measures

**Description Of First Aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Call a POISON CENTER/doctor/physician if you feel unwell.

**Skin Contact:** Rinse with plenty of water. Obtain medical attention if irritation persists.

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

**Ingestion:** Rinse mouth, do NOT induce vomiting. Obtain emergency medical attention.

**Most Important Symptoms And Effects Both Acute and Delayed**

**General:** Eye irritation

**Inhalation:** May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin Contact:** May cause mild skin irritation.

**Eye Contact:** Causes serious eye irritation.

**Ingestion:** Abdominal pain. Nausea. Gastrointestinal irritation.

**Chronic symptoms:** May aggravate prexisting central nervous system disorders, asthma, and other respiratory conditions.

**Indication Of Any Immediate Medical Attention And Special Treatment Needed**

If you feel unwell, seek medical advice (show the label where possible).

## 5. Fire-fighting Measures

**Extinguishing Media**

**Suitable extinguishing media:** Carbon dioxide ($CO_2$), dry chemical, foam.

**Unsuitable extinguishing media:** Do not use a heavy water stream.

**Special Hazards Arising From The Substance Or Mixture**

**Fire hazard:** Flammable liquid and vapour

**Explosion hazard:** May form flammable/explosive vapour-air mixture.

**Reactivity:** Not available

**Advice For Firefighters**

**Precautionary measures fire:** Not available

**Firefighting instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses

**Protection during firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides, toxic fumes are released.

**Reference To Other Sections**

Refer to section 9 for flammability properties.

## 6. Accidental Release Measures

**Personal Precautions, Protective Equipment And Emergency Procedures**

**General measures:** Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid breathing (vapor, mist). Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice.

**For Non-Emergency Personnel**

**Protective equipment:** Use appropriate personal protection equipment (PPE).

**Emergency procedures:** Evacuate unnecessary personnel.

**For Emergency Personnel**

**Protective equipment:** Equip cleanup crew with proper protection.

**Emergency procedures:** Ventilate area.

**Environmental Precautions**

Prevent entry to sewers and public waters.

**Methods And Material For Containment And Cleaning Up**

**For containment :** Absorb and/or contain spill with inert material, then place in suitable container. Use only non-sparking tools. Ventilate area, do not take up in combustible material such as: saw dust or cellulosic material.

**Methods for cleaning up:** Clear up spills immediately and dispose of waste safely.

**Reference To Other Sections**

See Heading 8, exposure controls and personal protection

## 7. Handling and Storage

### Precautions For Safe Handling

**Additional hazards when processed:** Handle empty containers with care because residual vapours are flammable.

**Hygiene measures:** Use good industrial Hygiene and safety procedures. Make sure to wash hands before eating, drinking, smoking, and when leaving work. Avoid skin, eye, and clothing contact. Do not breathe vapor or mist.

### Conditions For Safe Storage, Including Any Incompatibilities

**Technical measures:** Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, and lighting equipment.

**Storage conditions:** Keep only in the original container in a cool, well ventilated place away from: combustible materials, and incompatibilities. Keep container closed when not in use.

**Specific End Use(s)**
Laboratory Reagent

## 8. Exposure controls and personal protection

**Control Parameters**

There are no occupational exposure limits established for this product or its components.

**Exposure Controls**

**Appropriate engineering controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits. All electrical equipment should comply with the National Electric Code. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Take precautionary measures against static discharges. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapours may be released.

**Personal protective equipment:** Avoid all unnecessary exposure. Fireproof clothing. Insufficient ventilation: wear respiratory protection. Protective goggles. Gloves.

**Materials for protective clothing:** Wear fire/flame resistant/retardant clothing. Chemically resistant materials and fabrics.

**Hand protection:** Wear chemically resistant protective gloves.

**Eye protection:** Chemical goggles or safety glasses.

**Skin and body protection:** Not available

**Respiratory protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

**Environmental exposure controls:** Do not release to the environment.

**Other information:** When using, do not eat, drink or smoke.

## 9. Physical and chemical properties

**Information On Basic Physical And Chemical Properties**

| | |
|---|---|
| Physical state | Liquid |
| Appearance | Clear |
| Odour | mild |
| Odour threshold | Not available |
| pH | Not available |
| Relative evaporation rate (butylacetate=1) | Not available |
| Melting point | -70 °C (-94°F) |
| Freezing point | Not available |
| Boiling point | 150 °C (302°F) |
| Flash point | 48 °C (118°F) |
| Auto-ignition temperature | Not available |
| Decomposition Temperature | Not available |
| Flammability (solid, gas) | Not available |
| Lower flammable limit | 1.3 % |
| Upper flammable limit | 16.9 % |
| Vapour pressure | 1.7 mm Hg |
| Relative vapor density at 20 °C | 4, air=1 |

| | |
|---|---|
| Relative density | Not available |
| Specific gravity density | 0.89 |
| Solubility | Water: soluble |
| Log Pow | Not available |
| Log Kow | Not available |
| Viscosity, kinematic | Not available |
| Viscosity, dynamic | Not available |
| Explosion data - sensitivity to mechanical impact | Not available |
| Explosion data - sensitivity to static discharge | Not available |

## 10. Stability and reactivity

**Reactivity** Not available

**Chemical Stability** Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

**Possibility Of Hazardous Reactions** Hazardous polymerization will not occur.

**Conditions To Avoid** Direct sunlight. Extremely high or low temperatures.Open flame. Heat. Sparks.

**Incompatible Materials** Nitric acid. Acetic acid. Sulfuric acid.

**Hazardous Decomposition Products** May release flammable gases. Carbon oxides (CO, CO2). Toxic gases.

## 11. Toxicological information

**Information On Toxicological Effects - Product**

**Acute toxicity :** Not classified

**LD50 and LC50 Data** Not available

**Skin corrosion/irritation:** Not classified

**Serious eye damage/irritation:** Causes serious eye irritation.

**Respiratory or skin sensitisation:** Not classified

**Germ cell mutagenicity:** Not classified

**Teratogenicity:** Not available

**Carcinogenicity:** Not classified

**Specific target organ toxicity (repeated exposure):** Not classified

**Reproductive toxicity:** Not classified

**Specific target organ toxicity (single exposure):** May cause respiratory irritation. May cause drowsiness or dizziness.

**Aspiration hazard:** Not classified

**Symptoms/injuries after inhalation:** May cause drowsiness or dizziness. May cause respiratory irritation.

**Symptoms/injuries after skin contact:** May cause mild skin irritation.

**Symptoms/injuries after eye contact:** Causes serious eye irritation.

**Symptoms/injuries after ingestion:** Abdominal pain. Nausea. Gastrointestinal irritation.

**Chronic symptoms:** May aggravate prexisting central nervous system disorders, asthma, and other respiratory conditions.

**Information On Toxicological Effects - Ingredient(s)**

**LD50 and LC50 Data**

**2-Propanol, 1-propoxy- (1569-01-3)**

| | |
|---|---|
| LD50 oral rat | 2504 mg/kg |
| LD50 dermal rabbit | 3550 mg/kg |

## 12. Ecological information

**Toxicity**

**Persistence And Degradability**

**PNP**

| | |
|---|---|
| Persistence and degradability | Not established. |

**Bioaccumulative Potential**

**PNP**

| | |
|---|---|
| Bioaccumulative potential | Not established. |

**Mobility In Soil** Not available

**Other Adverse Effects**

**Other information:** Avoid release to the environment.

## 13. Disposal considerations

**Waste disposal recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Additional information:** Handle empty containers with care because residual vapours are flammable.

**Ecology - waste materials:** Avoid release to the environment.

## 14. Transport information

**In accordance with ICAO/IATA/DOT/TDG**

**UN Number**

**UN-No.(DOT):** 1993
**DOT NA no.:** UN1993

**UN Proper Shipping Name**

**DOT Proper Shipping Name :** Flammable liquids, n.o.s.(2-Propanol, 1-propoxy-)

**Department of Transportation (DOT) Hazard Classes :** 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

**Hazard labels (DOT) :** 3 - Flammable liquid

**DOT Symbols :** G - Identifies PSN requiring a technical name

**Packing group (DOT) :** III - Minor Danger

**DOT Special Provisions (49 CFR 172.102) :** B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

**DOT Packaging Exceptions (49 CFR 173.xxx) :** 150
**DOT Packaging Non Bulk (49 CFR 173.xxx) :** 203
**DOT Packaging Bulk (49 CFR 173.xxx) :** 242

**Additional information**
**Emergency Response Guide (ERG) Number :** 128

**Overland transport** Flammable liquids, n.o.s.(2-Propanol, 1-propoxy-)

**Transport by sea**
DOT Vessel Stowage Location :
A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

**Air transport**
**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) :** 60 L
**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) :** 220 L

## 15. Regulatory information

**US Federal regulations**

**2-Propanol, 1-propoxy- (1569-01-3)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**US State regulations** -

2-Propanol, 1-propoxy- (1569-01-3)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

**Canadian regulations**

**PNP**

| | |
|---|---|
| WHMIS Classification | Class B Division 3 - Combustible Liquid |
| | Class D Division 2 Subdivision B - Toxic material causing other toxic effects |

**2-Propanol, 1-propoxy- (1569-01-3)**

Listed on the Canadian DSL (Domestic Sustances List) inventory.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

## 16. Other information

**Indication of changes** : Revision date: 05/13/2013

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases:**

| | |
|---|---|
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Flam. Liq. 3 | Flammable liquids Category 3 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H226 | Flammable liquid and vapour |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |

**NFPA health hazard :** 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

**NFPA fire hazard :** 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

**NFPA reactivity :** 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS III Rating**

**Health :** 1 Slight Hazard - Irritation or minor reversible injury possible

**Flammability:** 2 Moderate Hazard

**Physical :** 0 Minimal Hazard

**Party Responsible For The Preparation Of This Document:**
OFI Testing Equipment

Phone Number: 832-320-7300

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.