# Material Safety Data Sheet

**Polyethylene Glycol 400 PEG 400** (RXSOL-81-8123-220)

## 1. Product and Company Identifaction

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| Product Name | Polyethylene Glycol 4000 (PEG 4000) |
| Part Number | RXSOL-81-8123-220 |

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

| | |
|---|---|
| Phone | +91 22 20871200 - 1400 |
| Fax | +91 22 27612100 :::AOH :0091 9821214367 |
| Email | mail@rxmarine.com |
| Website | www.rxmraine.com |


## 2. Composition / informationon ingredients

| Chemical Name | CAS | EC number | Weight | Formula |
|---|---|---|---|---|
| Polyethylene Glycol | 25322-68-3 | 500-038-2 | >95 | (C2H4O)nH2O |

## 3. Hazards Identification

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| Signal Word | None |
| Hazard Statements | None |
| P280 Wear protective gloves.P305 + P351 + P338 | Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Precautionary statements response | P261 Avoid breathing dust. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| 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. |
| Eye Contact | Flush eyes with water as a precaution. |
| Swallowed | Never give anything by mouth to an unconscious person. Rinse mouth with water. |
| Skin Contact | Wash off with soap and plenty of water. |
| Inhalation | Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary. |

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| Ingestion | 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. |
| 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 | May be combustible at high temperature. |
| Flash Point | Higher than 93.3°C (200°F). |
| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | For this substance/mixture no limitations of extinguishing agents are given. |
| Special hazards arising from the substance or mixture | Carbon oxides |
| Further information | Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Hazardous combustion products | Fire may cause the evolution of Sulphur oxides, nitrogen oxides. |
| Advice for firefighters | Wear self-contained breathing apparatus for firefighting if necessary. |
| Protective Equipment | Use personal protective equipment. |
| Specific Hazards Arising from the Chemical | Has a fire-promoting effect due to the release of oxygen.<br>Ambient fire may liberate hazardous vapours. |

## 6. Accidental Release Measures

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| Personal precautions, protective equipment and emergency procedures | Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection see section 8. |
| Spillage | 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 dike if needed. Eliminate all ignition sources. Call for assistance on disposal. |
| Personal Protection | 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. |
| Enviromental Precaution | No special environmental precautions required. |
| Methods and materials for containment and cleaning | Sweep up and shovel. Keep in suitable, closed containers for disposal. |

## 7. Handling and Storage

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| Advice on safe handling | Provide appropriate exhaust ventilation at places where dust is formed. |
| Advice on protection against fire and explosion | Keep away from open flames, hot surfaces and sources of ignition. |
| Incompatible materials | Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills. |
| Hygiene measures | General industrial hygiene practice. For precautions see section 2.2. |
| Precautions for safe handling | For precautions see section 2.2. |
| Conditions for safe storage, including any incompatibilities | Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials. |
| Storage conditions | Store in cool place. Keep container tightly closed in a dry and well-ventilated place. |
| Storage class | Storage class (TRGS 510): 13: Non Combustible Solids |
| Specific end use(s) | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated |

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| Handling | Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals |
| Advice on general occupational hygiene | Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance. |
| Requirements for storage | Keep in cool and store under shade. |

## 8. Exposure controls and personal protection

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| Occupational Exposure limit values | No specific occupational exposure limit has been established. |
| Biological limit values | No data available |
| Exposure controls | No specific additional engineering controls are required. Provide good natural or artificial ventilation. |
| Engineering Control | Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. |
| Eye/face protection | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles |
| Body Protection | Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Skin protection | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. |
| Respiratory protection | Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Other Protection Measure | Handle in accordance with good industrial hygiene and safety practice. |
| Control of environmental exposure | Do not let product enter drains. |
| Thermal hazards | No data available |



Gloves



Suit

## 9. Physical and chemical properties

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| Physical state | Powder |
| Colour | White |
| Odour | No data available |
| Odor Threshold | Not Applicable |
| pH | 5,5 - 7,0 at 50 g/l at 25 °C |

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| Melting Point | No data available |
| Boiling Point | No data available |
| Flash Point | Not Applicable |
| Evaporation Rate | Not Applicable |
| Flammability (solid, gas) | No data available |
| Explosive limits | No Data Available |
| Upper/lower flammability or explosive limits | No data available |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| Vapour pressure | No data available |
| Density | No data available |
| Vapour Density | No Data Available |
| Freezing point | No data available |
| Specific Gravity | No data available |
| Partition coefficient | No data available |
| Explosive properties | No data available |
| Solubility | 100 g/l - clear |
| Ignition temperature | Hazardous polymerization does not occur. |
| Particle characteristics | No data available |

## 10. Stability and reactivity

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| Reactivity | No data available |
| Stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No data available |
| Conditions to avoid | Incompatible products. Excess heat. Avoid dust formation |
| Incompatible materials | Strong oxidizing agents |
| Hazardous Polymerization | In the event of fire: see section 5 |

## 11. Toxicological information

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| Acute toxicity | Oral: No data available Inhalation: No data available Dermal: No data available |
| Skin corrosion/irritation | Skin - reconstructed human epidermis (RhE) Result: No skin irritation - 15 min Remarks: (ECHA) |
| Serious eye damage/eye irritation | Eyes - Rabbit Result: irritating (OECD Test Guideline 405) |
| Respiratory or skin sensitization | Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429) |
| Serious eye damage/eye irritation | No data available |
| Toxic Effects on Human | May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer). |
| Germ cell mutagenicity | Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative 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 |
| Carcinogenicity | This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. |
| Reproductive toxicity | Carcinogenicity |
| Carcinogenicity | Positive evidence from human epidemiological studies (inhalation) |
| Specific target organ toxicity - single exposure | No data available |

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| Special Remarks on other Toxi Effects on Humans | Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism. |
| Additional Information | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |
| 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. RTECS: QR7300000 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 | No data available |
| Bioaccumulative potential | No data available |
| Toxicity to fish | No data available |
| Toxicity to daphnia and other aquatic invertebrates | No data available |
| Toxicity to algae | Static test ErC50 - Pseudokirchneriella subcapitata (algae) - > 100 mg/l - 72 h (OECD Test Guideline 201) |
| Toxicity to bacteria | No data available |
| Eco Toxicity | Not Available |
| COD and BOD 5 | Not Available |
| Products Biodegradation | The methods for determining the biological degradability are not applicable to inorganic substances. |
| Mobility in soil | No Information 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 | 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 | No data available |

## 13. Disposal considerations

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| Disposal methods | The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. |
| Contaminated packaging | Dispose of as unused product. |
| Waste treatment Method | Offer surplus and non-recyclable solutions to a licensed disposal company. |

## 14. Transport information

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| UN number | ADR/RID: IMDG: IATA: |
| UN proper shipping name | ADR/RID :<br>IMDG:<br>IATA: |
| Transport hazard class(es) | ADR/RID: IMDG: IATA: |
| Packaging group | ADR/RID: IMDG: IATA: |
| Environmental hazards | ADR/RID: NO IMDG: NO IATA: NO |
| Special precautions for user | Tunnel restriction code : (C/E) |
| Further information | Not classified as dangerous in the meaning of transport regulations. |

## 15. Regulatory information

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| Inventory status | Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65. |
| 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 |
| Safety, health and environmental regulations specific for the product in question | European Inventory of Existing Commercial Chemical Substances (EINECS) -Listed.EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory- Listed. China Catalog of Hazardous chemicals 2015 Not- Listed. New Zealand Inventory of Chemicals (NZIoC)Listed. PICCS -Listed. Vietnam National Chemical Inventory -Listed. IECSC Listed. Korea Existing Chemicals List (KECL) -Listed. |
| National legislation | Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : OXIDISING LIQUIDS AND SOLIDS : ENVIRONMENTAL HAZARDS |
| 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 weassume 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.<br><br>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. |