# Material Safety Data Sheet

**Diethylene Glycol** (RXSOL-19-3600-115)

## 1. Product and Company Identifaction

| | |
|---|---|
| Product Name | Diethylene Glycol |
| Part Number | RXSOL-19-3600-115 |

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

Substances

| | |
|---|---|
| Formula | $C_4H_{10}O_3$ |
| Molecular weight | 106,12 g/mol |
| CAS-No. | 111-46-6 |
| EC-No. | 203-872-2 |
| Index-No. | 603-140-00-6 |

| Component | Classification | Concentration |
|---|---|---|
| Diethylene glycol | | |
| CAS-No. 111-46-6<br>EC-No 203-872-2<br>Index-No. 603-140-00-6 | Acute Tox. 4; H302 | = 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 3. Hazards Identification

Classification of the substance or mixture

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|---|---|
| Acute toxicity, (Category 4) | H302: Harmful if swallowed |

Label elements

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| Signal Word | Warning |
| Hazard Statements | H302 Harmful if swallowed. |
| Precautionary Statements | P264 Wash skin thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.<br>P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.<br>P501 Dispose of contents/ container to an approved waste disposal plant. |
| Supplemental Hazard Statements | None |
| Reduced Labeling (= 125 ml) | |
| Signal Word | Warning |

| | |
|---|---|
| Hazard statement(s) | None |
| Precautionary statement(s) | None |
| 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.<br><br>Ecological information:<br>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.<br>Toxicological information:<br>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. |

## 4. First Aid Measures

Description of 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. Call in physician. |
| In case of skin contact | In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician. |
| In case of eye contact | After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses. |
| If swallowed | After swallowing: immediately make victim drink water (two glasses at most). Consult a physician. |
| Most important symptoms and effects, both acute and delayed | 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

Extinguishing media

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| Suitable extinguishing media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | For this substance/mixture no limitations of extinguishing agents are given. |
| Special hazards arising from the substance or mixture | Carbon oxides<br>Combustible.<br>Vapors are heavier than air and may spread along floors.<br>Forms explosive mixtures with air on intense heating.<br>Development of hazardous combustion gases or vapours possible in the event of fire. |
| Advice for firefighters | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
| Further information | Prevent fire extinguishing water from contaminating surface water or the ground water system. |

## 6. Accidental Release Measures

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| Personal precautions, protective equipment and emergency procedures | Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. |
| Environmental precautions | Do not let product enter drains. |
| Methods and materials for containment and cleaning up | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. |
| Reference to other sections | For disposal see section 13. |

## 7. Handling and Storage

Precautions for safe handling

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| Advice on safe handling | Work under hood. Do not inhale substance/mixture. |
| Hygiene measures | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. |
| Conditions for safe storage, including any incompatibilities | |
| Storage conditions | No metal containers.<br>Tightly closed and away from sources of ignition and heat. Observe national regulations.<br>Air and moisture sensitive. |
| Storage class | Storage class (TRGS 510): 4.1A: Other explosive hazardous materials |
| Specific end use(s) | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated |

## 8. Exposure controls and personal protection

Control parameters

Ingredients with workplace control parameters

Exposure controls

Personal protective equipment

| | |
|---|---|
| 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 |
| Skin protection | 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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).<br>Full contact<br>Material: Chloroprene<br>Minimum layer thickness: 0,65 mm<br>Break through time: 480 min<br>Material tested:KCL 720 Camapren®<br><br>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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).<br>Splash contact<br>Material: Latex gloves<br>Minimum layer thickness: 0,6 mm<br>Break through time: 60 min<br><br>Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M). |
| Body Protection | Protective clothing |
| Respiratory protection | Required when dusts are generated.<br>Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.<br>Recommended Filter type: Filter type P3<br>The entre peneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.<br>These measures have to be properly documented. |
| Control of environmental exposure | Do not let product enter drains. |

## 9. Physical and chemical properties

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|---|---|
| Physical state | Liquid |
| Colour | Colorless |
| Odor | Odorless |
| Melting point/freezing point | Melting point/freezing point: -6,5 °C |
| Initial boiling point and boiling range | 244,9 °C at 1.013 hPa - (ECHA) |

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| Flammability (solid, gas) | No data available |
| Upper/lower flammability or explosive limits | Upper explosion limit: 37 %(V)<br>Lower explosion limit: 1,7 %(V) |
| Flash point | 138 °C - closed cup |
| Autoignition temperature | 372 °C<br>at 1.013,25 hPa |
| Decomposition temperature | > 150 °C<br>Heating may cause an explosion. |
| pH | 2,5 - 3,5 at 50 g/l at 20 °C |
| Viscosity | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| Water solubility | ca.470 g/l at 20 °C - OECD Test Guideline 105 |
| Partition coefficient: n-octanol/water | - Not applicable for inorganic substances |
| Vapor pressure | 0,001 hPa at 50 °C - OECD Test Guideline 104 |
| Density | 1,67 g/cm3 at 25 °C - lit. |
| Relative density | No data available |
| Relative vapor density | No data available |
| Particle characteristics | No data available |
| Explosive properties | No data available |
| Oxidizing properties | None |
| Other safety information | |
| Surface tension | ca.71,8 m N/m at 1,025g/l at 20 °C |

## 10. Stability and reactivity

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|---|---|
| Reactivity | Sensitive to shock<br>Risk of dust explosion. |
| Chemical stability | The product is chemically stable under standard ambient conditions (room temperature) |
| Possibility of hazardous reactions | Violent reactions possible with:<br>Alkaline substances<br>Possible formation of:<br>Hydroxylamine<br>Risk of explosion with:<br>Fire-promoting substances<br>Oxidizing agents |
| Conditions to avoid | Air Exposure to moisture. May be unstable at temperatures above: 75° C Heating (decomposition).<br>No information available |
| Incompatible materials | No data available |
| Hazardous decomposition products | In the event of fire: see section 5 |

## 11. Toxicological information

Information on toxicological effects

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|---|---|
| Acute toxicity | LD50 Oral - Rat - male and female - 642 mg/kg<br>(OECD Test Guideline 401)<br>Acute toxicity estimate Oral - 642 mg/kg<br>(ATE value derived from LD50/LC50 value)<br>Inhalation: No data available<br>Acute toxicity estimate Dermal - 1.100,1 mg/kg<br>(Expert judgment)<br>Remarks: (Regulation (EC) No 1272/2008, Annex VI) |
| Skin corrosion/irritation | Skin - In vitro study<br>Result: Irritating to skin. - 42 min<br>(OECD Test Guideline 439) |
| Serious eye damage/eye irritation | Eyes - In vitro study<br>Result: Eye irritation - 6 h<br>Remarks: (ECHA) |

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| Respiratory or skin sensitization | Maximization Test - Guinea pig<br>Result: positive<br>(OECD Test Guideline 406) |
| Germ cell mutagenicity | Test Type: Ames test<br>Test system: S. typhimurium<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative<br>Test Type: In vitro mammalian cell gene mutation test<br>Test system: mouse lymphoma cells<br>Metabolic activation: with and without metabolic activation<br>Result: negative<br>Remarks: (ECHA)<br>Test Type: Rat<br>Test system: Embryo<br>Remarks: Morphological transformation.<br>Test Type: Hamster<br>Test system: Lungs<br>Remarks: Sister chromatid exchange<br>Test Type: Mutagenicity (mammal cell test): micronucleus.<br>Species: Mouse<br>Cell type: Red blood cells (erythrocytes)<br>Application Route: Oral<br>Method: OECD Test Guideline 474<br>Result: negative |
| Carcinogenicity | Suspected of causing cancer. |
| Reproductive toxicity | No data available |
| Specific target organ toxicity - single exposure | No data available |
| Specific target organ toxicity - repeated exposure | Ingestion - May cause damage to organs through prolonged or repeated exposure.<br>- spleen<br>Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) |
| Aspiration hazard | No data available |
| Additional Information | |
| Endocrine disrupting properties<br>Product | |
| Assessment | 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.<br>RTECS: NC3675000<br>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

## 12. Ecological information

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| Toxicity | |
| Toxicity to fish | Semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,78 mg/l - 96 h<br>(OECD Test Guideline 203) |
| Toxicity to daphnia and other aquatic invertebrates | Semi-static test EC50 - Daphnia magna (Water flea) - 1,1 mg/l - 48 h<br>(OECD Test Guideline 202) |
| Toxicity to algae | Static test ErC50 - Pseudokirchneriella subcapitata - 0,21 mg/l - 72 h<br>(OECD Test Guideline 201)<br>Static test EC10 - Raphidocelis subcapitata (freshwater green alga) - 0,075 mg/l - 72 h<br>(OECD Test Guideline 201) |
| Persistence and degradability | The methods for determining biodegradability are not applicable to inorganic substances. |
| Bioaccumulative potential | No data available |
| Mobility in soil | No data 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 | |

| | |
|---|---|
| Assessment | 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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|---|---|
| Waste treatment Method | No data available |

## 14. Transport information

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|---|---|
| UN number | ADR/RID:3260 IMDG:3260 IATA: 3260 |
| UN proper shipping name | ADR/RID: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydroxylammonium chloride)<br>IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydroxylammonium chloride)<br>IATA: Corrosive solid, acidic, inorganic, n.o.s. (Hydroxylammonium chloride) |
| Transport hazard class(es) | ADR/RID: 8 IMDG: 8 IATA:8 |
| Packaging group | ADR/RID: III IMDG: III IATA:III |
| Environmental hazards | ADR/RID: no IMDG Marine pollutant: no 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. |
| Authorisations and/or restrictions on use | |
| National legislation<br>Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | E1 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. |