Material Safety Data Sheet

Diethylene Glycol (RXSOL-19-3600-025)

1. Product and Company Identifaction

Product Name	Diethylene Glycol
Part Number	RXSOL-19-3600-025

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

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Email	mail@rxmarine.com
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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 EC-No 203-872-2 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

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

Label elements

Signal Word	Warning
Hazard Statements	H302 Harmful if swallowed.
Precautionary Statements	P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. 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. Ecological information: 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. Toxicological information: 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

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

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 Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. 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

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

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. Tightly closed and away from sources of ignition and heat. Observe national regulations. 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). Full contact Material: Chloroprene Minimum layer thickness: 0,65 mm Break through time: 480 min Material tested:KCL 720 Camapren® 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). Splash contact Material: Latex gloves Minimum layer thickness: 0,6 mm Break through time: 60 min Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M).
Body Protection	Protective clothing
Respiratory protection	Required when dusts are generated. 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. Recommended Filter type: Filter type P3 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. These measures have to be properly documented.
Control of environmental exposure	Do not let product enter drains.

9. Physical and chemical properties

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)

Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 37 %(V) Lower explosion limit: 1,7 %(V)
Flash point	138 °C - closed cup
Autoignition temperature	372 °C at 1.013,25 hPa
Decomposition temperature	> 150 °C Heating may cause an explosion.
pH	2,5 - 3,5 at 50 g/l at 20 °C
Viscosity	Viscosity, kinematic: No data available 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

Reactivity	Sensitive to shock 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: Alkaline substances Possible formation of: Hydroxylamine Risk of explosion with: Fire-promoting substances Oxidizing agents
Conditions to avoid	Air Exposure to moisture. May be unstable at temperatures above: 75° C Heating (decomposition). 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

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

Respiratory or skin sensitization	Maximization Test - Guinea pig Result: positive (OECD Test Guideline 406)
Germ cell mutagenicity	Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Result: negative Remarks: (ECHA) Test Type: Rat Test system: Embryo Remarks: Morphological transformation. Test Type: Hamster Test system: Lungs Remarks: Sister chromatid exchange Test Type: Mutagenicity (mammal cell test): micronucleus. Species: Mouse Cell type: Red blood cells (erythrocytes) Application Route: Oral Method: OECD Test Guideline 474 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. - spleen 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 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. RTECS: NC3675000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

Toxicity	
Toxicity to fish	Semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,78 mg/l - 96 h (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 (OECD Test Guideline 202)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata - 0,21 mg/l - 72 h (OECD Test Guideline 201) Static test EC10 - Raphidocelis subcapitata (freshwater green alga) - 0,075 mg/l - 72 h (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

Waste treatment Method	No data available

14. Transport information

UN number	ADR/RID:3260 IMDG:3260 IATA: 3260
UN proper shipping name	ADR/RID: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydroxylammonium chloride) IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydroxylammonium chloride) 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

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 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

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. 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.