Material Safety Data Sheet

Tri Ethylene Glycol (RXSOL-27-1464-240)

1. Product and Company Identifaction

Porduct Name	TRI ETHYLENE GLYCOL
Part Number	RXSOL-19-1464-210

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / informationon ingredients

Product name	Cas No	EC No	Weight	Formula
Triethylene glycol	112-27-6	203-953-2	150,17 g/mol	$C_6H_{14}O_4$

3. Hazards Identification

GHS Classification

Not a hazardous substance or mixture.

Precautionary statements	**Prevention**: Wash hands thoroughly after handling. **Response**: Get medical advice/ attention if you feel unwell. **Storage**: Store in accordance with local regulations.
Other hazards	None known.

4. First Aid Measures

In case of eye contact	Rinse with plenty of water. Get medical attention if symptoms occur.
In case of skin contact	Wash off with soap and plenty of water. Get medical attention if symptoms occur.
If swallowed	Rinse mouth. Get medical attention if symptoms occur. Contact the Poison's Information Centre (eg Australia 13 1126; New Zealand 0800 764 766).
If inhaled	Get medical attention if symptoms occur.
Protection of first-aiders	In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	Treat symptomatically.
Most important symptoms and effects, both acute and delaye	See Section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	None known.
Specific hazards during firefighting	Not flammable or combustible.
Hazardous combustion products	Decomposition products may include the following materials: Carbon oxides
Special Protective Equipment for firefighters	Use personal protective equipment.
Specific extinguishing methods	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Refer to protective measures listed in sections 7 and 8.
Enviromental Precaution	No special environmental precautions required.
Methods and materials for containment and cleaning up	Stop leak if safe to do so. Contain spillage, and then collect with non- combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

7. Handling and Storage

Advice on safe handling	For personal protection see section 8. Wash hands after handling.
Conditions for safe storage	Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Suitable material	Keep in properly labelled containers.
Unsuitable material	Not determined

8. Exposure controls and personal protection

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection	Safety glasses
Hand protection	Wear the following personal protective equipment: Nitrile-rubber, Butyl-Rubber and Neoprene gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	Wear suitable protective clothing.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.If the occupational exposure limit is likely to be exceeded, an approved respirator must be selected and used in accordance with AS/NZS 1715 and AS/NZS 1716.
Hygiene measures	Wash hands before breaks and immediately after handling the product.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

9. Physical and chemical properties

Appearance	Liquid

Colour	Clear colourless
Odour	Mild
Odor Threshold	No data available
pH	7.0
Melting point/freezing point	No data available
Initial boiling point and boiling range	281.1 °C
Flash Point	154 °C, Method: Pensky-Martens closed cup
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper explosion limit	9 V%
Lower explosion limit	0.9 V%
Vapour pressure	0.0133333 hPa, (20 °C),
Relative vapour density	5.17(Air = 1.0)
Relative density	1.1100 - 1.1400, (20 °C),
Density	1.1227 g/cm3
Water solubility	Soluble
Solubility in other solvents	No data available
Partition coefficient: n- octanol/water	No data available
Auto-ignition temperature	370 °C
Thermal decomposition	No data available
Viscosity, dynamic	30 - 60 mPa.s (20 °C)
Viscosity, kinematic	26.4 mm2/s (40 °C)
Molecular weight	No data available
VOC	No data available

10. Stability and reactivity

Reactivity	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable under normal conditions.
Possibilityof hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	None known.
Incompatible materials	No data available
Hazardous decomposition products	Decomposition products may include the following materials: Carbon oxides

11. Toxicological information

Information on likely routes of exposure	Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes	Health injuries are not known or expected under normal use.
Skin	Health injuries are not known or expected under normal use.
Ingestion	Health injuries are not known or expected under normal use.
Inhalation	Health injuries are not known or expected under normal use.
Chronic Exposure	Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact	No symptoms known or expected.
Skin contact	No symptoms known or expected.
Ingestion	No symptoms known or expected.

Inhalation	No symptoms known or expected.

Toxicity

Product

Acute oral toxicity	LD50 rat: 16,800 - 22,060 mg/kg
Acute inhalation toxicity	LC50 rat: > 4.5 mg/l Test atmosphere: dust/mist
Acute dermal toxicity	LD50 rabbit: 18,016 mg/kg
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive effects	No toxicity to reproduction
Germ cell mutagenicity	Contains no ingredient listed as a mutagen
Teratogenicity	No data available
STOT - single exposure	No data available
STOT - repeated exposure	No data available
Aspiration toxicity	No aspiration toxicity classification

Human Hazard Characterization

Based on our hazard characterization, the potential human hazard is: Low

12. Ecological information

Toxicity

Environmental Effects	This product has no known ecotoxicological effects.

Product

Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity to algae	No data available

Persistence and degradability

No data available

Mobility

No data available

Bioaccumulative potential

No data available

Other information

No data available

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION
Based on our hazard characterization, the potential environmental hazard is: Low

13. Disposal considerations

Disposal methods	Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport

Proper shipping name	PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Air transport (IATA)

Proper shipping name	PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Sea transport (IMDG/IMO)

Proper shipping name	PRODUCT IS NOT REGULATED DURING TRANSPORTATION

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.
Other regulations	No data available
Chemical Safety Assessment	A Chemical Safety Assessment was not carried out for this substance.

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.