Material Safety Data Sheet

Methoxy Triglycol (RXSOL-19-1357-210)

1. Product and Company Identifaction

Product Name	: Methoxy Triglycol
Part Number	: RXSOL-19-1357-210

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

Branch : Kandla, Hazira (Surat), Mumbai, Chennai,Vizag, Kolkata, UAE, Oman

Phone	+91 22 2087 1200 - 1400
Fax	+91 22 27612100 :::AOH :0091 9821214367
Email	**123@rxmarine.com**
Website	**www.rxmarine.com**

2. Composition / informationon ingredients

Name of Substance	Cas Number	EINECS
Triethylene glycol monomethyl ether	112-35-6	203-962

3. Hazards Identification

Signal Word	None
Hazard Statements	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Precautionary statements - prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Precautionary statements - response	**IF exposed or concerned**: Get medical advice/ attention **Storage:** Store locked up. **Disposal:** Dispose of contents/ container to an approved waste disposal plant.
Other Hazard	No data available.

4. First Aid Measures

Eye Contact:	Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.
Skin Contact:	Wash off with soap and plenty of water.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Ingestion:	Rinse mouth with water. No emergency medical treatment necessary.
Most important symptoms and effects, both acute and delayed:	Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.
Notes to Physicians:	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting Measures

Suitable extinguishing media	Water fog or fine spray.. Dry chemical fire extinguishers.. Carbon dioxide fire extinguishers.. Foam.. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.
Unsuitable extinguishing media	Do not use direct water stream.. May spread fire..
Hazardous combustionproducts	During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.. Combustion products may include and are not limited to:. Carbon monoxide.. Carbon dioxide.
Unusual Fire and Explosion Hazards:	Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.
Advice for firefighters	**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Burning liquids may be extinguished by dilution with water.. Do not use direct water stream. May spread fire.. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.. **Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Isolate area. Refer to section 7, Handling, for additional precautionary measures. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Enviromental Precaution	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up	**Small spills:** Absorb with materials such as: Sand. Vermiculite. Collect in suitable and properly labeled containers. Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage

Advice on safe handling	Avoid contact with eyes. Wash thoroughly after handling. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.
Storage	Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel. Viton. Neoprene. Nitrile. Natural rubber.

Advice on general occupational hygiene	Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas.

8. Exposure controls and personal protection

Control parameters	Components with workplace control parameters
Exposure controls	Appropriate engineering controls General industrial hygiene practice.
Engineering Control	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Personal Protection	**Eye / Face protection :** Eye/face protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. **Hand protection :** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. **Skin protection :** When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task. **Respiratory protection :** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 ºC, meeting standard EN 14387). **Control of environmental exposure :** No special environmental precautions required.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.



Gloves



Suit

9. Physical and chemical properties

Physical state	Liquid
Colour	Colourless

Odour	Mild, sweet
Odor Threshold	No Data Available
pH	No Data Available
Melting Point	No Data Available
Freezing Point	-44 °C
Boiling point (760 mmHg)	249 °C
Flash point	110 °C (closed cup)
Evaporation Rate	0.01 (Butyl Acetate = 1)
Flammability (solid, gas)	Not applicable
Lower explosion limit	1.3 % vol
Upper explosion limit	9.9 % vol
Vapor pressure	0.001 kPa at 25 °C
Relative vapor density	5.67 at 20 °C
Relative density	1.05 at 20 °C (water = 1)
Water solubility	> 1,000 g/L at 20 °C completely miscible
Solubility in other solvents	No data available
Partition coefficient: octanol	log Pow: -1.12 Measured
Autoignition temperature	210 °C
Decomposition Temperature	No data available
Dynamic Viscosity	7.3 mPa.s at 25 °C
Kinematic Viscosity	7.43 mm2/s at 20 °C
Explosive properties	No data available
Oxidizing properties	No data available
Liquid Density	1.0494 g/cm3 at 20 °C
Molecular weight	164.20 g/mol
Molecular formula	CH3 O(CH2 CH2 O)3H

10. Stability and reactivity

Recativity	No data available
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid:	Do not distill to dryness. Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.
Hazardous Decomposition	Decomposition products depend upon temperature, air supply and the presence of other materials.. Decomposition products can include and are not limited to:. Aldehydes.. Ketones.. Organic acids..
Incompatible materials:	Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - > 10.500 mg/kg (OECD Test Guideline 401) LD50 Dermal - Rabbit - male - 7.100 mg/kg
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)
Germ cell mutagenicity	in vitro assay S. typhimurium Result: negative Mouse - male and female Result: negative
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identifie probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological information

Ecotoxicity	**Acute toxicity to fish:** Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species). LC50, Danio rerio (zebra fish), static test, 96 Hour, > 5,000 mg/l, OECD Test Guideline 203 or Equivalent **Acute toxicity to aquatic invertebrates** EC50, Daphnia magna (Water flea), static test, 48 Hour, > 500 mg/l, Directive 84/449/EEC, C.2 **Acute toxicity to algae/aquatic plants** ErC50, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, > 500 mg/l, OECD Test Guideline 201 or Equivalent **Toxicity to bacteria** EC0, activated sludge, static test, 0.5 Hour, Respiration rates., > 2,000 mg/l, activated sludge test (OECD 209)
Persistence and degradability	**Biodegradability:** Material has inherent, ultimate biodegradability according to OECD test (s) guidelines (reaches > 60 or 70% biodegradation in OECD test(s). **10-day Window:** Pass **Biodegradation:** 100 % **Exposure time:** 13 d Method: OECD Test Guideline 301B or Equivalent
Bioaccumulative potential	**Bioaccumulation:** Bioconcentration potential is low (BCF 100 or Log Pow 3). **Partition coefficient:** n-octanol/water(log Pow): -1.12 at 20 °C Measured
Mobility in Soil	Potential for mobility in soil is very high (Koc between 0 and 50). **Partition coefficient (Koc):** 10 Estimated.
Results of PBT and vPvB assessment	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).
Other adverse effects	This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. Disposal considerations

Remarks:	Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

14. Transport information

Hazard Pictograms:

UN Number	ADR/RID: - IMDG: - IATA: None
UN proper shipping name	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
Transport hazard class(es)	ADR/RID: - IMDG: - IATA: None
Packing group	ADR/RID: - IMDG: - IATA: None
Environmental hazards	ADR/RID: no IMDG Marine pollutant: no IATA: no

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
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 we assume 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.

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