Material Safety Data Sheet

2 Ethoxy Ethanol (RXSOL-60-1985-025)

1. Product and Company Identifaction

Product Name	: 2 Ethoxyethanol
Part Number	: RXSOL-60-1985-025

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

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2. Composition / informationon ingredients

Chemical Name	Cas Number	EC Number	Weight.%
2 Ethoxyethanol	110-80-5	203-804-1	>99 %

3. Hazards Identification

Signal Word	Danger
Hazard Statements	Flammable liquid and vapor Harmful if swallowed Toxic if inhaled May damage fertility. May damage the unborn child
Precautionary Statements Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting/equipment Use only non-sparking tools IF exposed or concerned: Get medical attention/advice
Precautionary Statements Response	Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician Skin IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower Ingestion IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Fire In case of fire: Use CO2, dry chemical, or foam for extinction Storage Store locked up.Store in a well-ventilated place. Keep container tightly closed Disposal Dispose of contents/container to an approved waste disposal plant

4. First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation:	Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion:	If swallowed, do not induce vomiting. Allow victim to rinse his mouth and then to drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Call a physician.
General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

5. Fire-fighting Measures

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray. Unsuitable Extinguishing Media No information available
Flash Point	40 °C / 104 °F
Method	No information available
Autoignition Temperature	235 °C / 455 °F
Specific Hazards Arising from the Chemical	Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. May form explosive peroxides. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Vapors may form explosive mixtures with air
Hazardous Combustion Products	Carbon monoxide (CO) Carbon dioxide (CO2) peroxides
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.
Enviromental Precaution	Avoid release of neat product into surface water and sanitary sewage system.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
Reference to other sections	Refer to sections 7, 8 and 13.

7. Handling and Storage

Handling	Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe vapors or spray mist. Do not ingest. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area. May form explosive peroxides. Should crystals form in a peroxidizable liquid, peroxidation may have occurred and the product should be considered extremely dangerous. In this instance, the container should only be opened remotely by professionals.
Specific end use(s)	No information available.

8. Exposure controls and personal protection

Exposure Control	The product is registered for use under strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH) and must therefore be handled as such. Refer to the industry guidance prepared by Concawe, Cefic and EFCG for advice on the confirmation of strictly controlled conditions
Engineering Measure	Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
Individual protection measures	Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier. Eye/face protection : Safety glasses Hand protection : full contact The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 890 Vitoject® (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet(>,)> supplied by us and for the designated use. Other protective equipment : Flame retardant antistatic protective clothing. Respiratory protection : required when vapours/aerosols are generated. Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur 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.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.



Gloves



Suit

9. Physical and chemical properties

Appearance Physical State Odour	Colourless Liquid Aromatic
pH	7.00
Melting Point/Range	-70 °C / -94 °F
Boiling Point	135 °C / 275 °F
Flash Point	40 °C / 104 °F
Evaporation Rate	No information available
Flammability Solid /Gas	Not applicable
Vapor Pressure	5 mbar @ 20 °C
Vapor density	3.1 (Air = 1.0)
Flammability or explosive limits	
Upper	15.6% @ 93°C
Lower	1.7% @ 93°C
Specific Gravity	0.930
Solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Autoignition Temperature	235 °C / 455 °F
Viscosity	2.08 mPa.s at 20 °C
Molecular Formula	C4 H10 O2
Molecular Weight	90.12

10. Stability and reactivity

Recativity Hazard	None known, based on information available
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	The mixture itself will not dangerously react or polymerise to create hazardous conditions in normal use.
Conditions to avoid	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition. Exposure to air. Exposure to light.
Incompatible materials	Strong oxidizing agents, Strong acids, Strong bases, Metals.
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO2), peroxides
Polymerization	Hazardous polymerization does not occur. Hazardous Reactions None under normal processing

11. Toxicological information

Acute Toxicity

Component	LD50 Oral	LD50 Darmal	LC50 Inhalation
2-Ethoxyethanol	LD50 = 2800 mg/kg (Rat) LD50 = 1400 mg/kg (Guinea pig)	LD50 = 3300 mg/kg (Rabbit)	LC50 = 4267 ppm (Rat) 4 h

Acute dermal toxic	Acute toxicity estimate : 1,134 mg/kg
Skin corrosion	Drying-out effect resulting in rough and chapped skin. Mixture causes skin irritation.
Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. Can be absorbed through skin. Eyes: Causes eye irritation. Inhalation: Vapor causes respiratory tract and mucous membrane irritation.
Special Remarks on Chronic Effects on Humans	Detected in maternal milk in human. Passes through the placental barrier in animal. Embryotoxic and/or foetotoxic in animal. May cause adverse reproductive effects (male and femael fertility (spontaneous abortion and fetotoxicity) and birth defects based animal data.
Further information After absorption:	Headache, somnolence, Dizziness, euphoria, agitation, spasms, narcosis Effect potentiated by: ethanol Damage to: Kidney, Central nervous system, Liver

12. Ecological information

Toxicity to fish	static test LC50 Lepomis macrochirus (Bluegill sunfish): > 10,000 mg/l; 96 h.
Toxicity to daphnia and other aquatic invertebrates	EC50 Daphnia magna (Water flea): 7,670 mg/l; 48 h
Toxicity to algae	Static test NOEC Desmodesmus subspicatus (green algae): >= 1,000 mg/l; 72 h
Toxicity to bacteria	EC50 Bacteria: > 10,000 mg/l; 24 h
Biodegradability	The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.
Other adverse effects	> 60 %; 14 d; aerobic OECD Test Guideline 301C Readily biodegradable
Biochemical Oxygen Demand (BOD)	1,100 mg/g (5 d)
Chemical Oxygen Demand (COD)	1,890 mg/g
Bioaccumulative potential:Partition coefficient	n-octanol/water log Pow: 0.32
Mobility in soil	No information available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Additional ecological information	Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.No interference with wastewater treatment plants are to be expected when used properly. Discharge into the environment must be avoided

13. Disposal considerations

Waste Disposal Method	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

Land transport (ADR/RIT)

UN number	UN 1171
Proper shipping name	ETHYLENE GLYCOL MONOETHYL ETHER
Class	3
Packing group	III
Environmentally hazardous	---
Special precautions for user	Yes
Tunnel restriction code	D/E

Air transport (IATA)

UN number	UN 1171
Proper shipping name	ETHYLENE GLYCOL MONOETHYL ETHER
Class	3
Packing group	III
Environmentally hazardous	---
Special precautions for user	No

Sea transport (IMDG)

UN number	UN 1171
Proper shipping name	ETHYLENE GLYCOL MONOETHYL ETHER
Class	3
Packing group	III
Environmentally hazardous	---
Special precautions for user	Yes
EmS	F-E S-D

15. Regulatory information

Safety, health and environmental regulations/	legislation specific for the substance or mixture
Storage Class	3
Chemical safety assessment	For this product a chemical safety assessment was not carried out.
Full text of H-Statements	
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H331	Toxic if inhaled.
H360FD	May damage fertility. May damage the unborn child.

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.