Material Safety Data Sheet

ETHANETHIOL (RXSOL-19-3356-075)

1. Product and Company Identifaction

Product Name	ETHANETHIOL
Part Number	RXSOL-19-3356-075

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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2. Composition / informationon ingredients

Chemical Name	CAS	EC number	Weight	Formula
Ethanethiol	75-08-1	200-837-3	= 100 %	C_2H_6S

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H224 Extremely flammable liquid and vapor. H302 + H332 Harmful if swallowed or if inhaled. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P273 Avoid release to the environment. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
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. Stench.

4. First Aid Measures

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.
Eye Contact	After eye contact: rinse out with plenty of water. Remove contact lenses.
Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Inhalation	Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary.
Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.
Most important symptoms and effects, both acute and delaye	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

Flammability	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Suitable extinguishing media	Carbon dioxide (CO2) Foam Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Carbon oxides Sulfur oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.
Further information	Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	Fire may cause the evolution of Sulphur oxides, nitrogen oxides.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus.
Protective Equipment	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Oxides of phosphorus Sodium oxides Not combustible. Fire may cause evolution of: Oxides of phosphorus Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Spillage	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Enviromental Precaution	Do not let product enter drains. Risk of explosion.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

7. Handling and Storage

Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.
Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
Hygiene measures	Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.
Precautions for safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Storage conditions	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Storage class	Storage class (TRGS 510): 3: Flammable liquids
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Advice on general occupational hygiene	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.
Requirements for storage	Keep in cool and store under shade.

8. Exposure controls and personal protection

Exposure controls	Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Control parameters	Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Body Protection	Flame retardant antistatic protective clothing.
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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Butoject® (KCL 898) 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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Butoject® (KCL 898)
Respiratory protection	Required when vapours/aerosols 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 AX 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.
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not let product enter drains. Risk of explosion.

9. Physical and chemical properties

Physical state	Clear, liquid
Colour	Colorless
Odour	Stench.
Odor Threshold	No data available
pH	No data available
Melting Point	No data available
Boiling Point	35 °C - lit.
Flash Point	-45 °C - closed cup
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	18,2 %(V) / 2,8 %(V)
Autoignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	586,6 hPa at 20 °C 1.962,4 hPa at 55 °C
Density	0,839 g/cm3 at 25 °C - lit.
Relative Density	No data available
Relative vapor density	2,15 - (Air = 1.0)
Freezing point	No data available
Viscosity	No data available
Partition coefficient	log Pow: 1,5 at 20 °C
Explosive properties	No data available
Solubility	6,8 g/l at 20 °C
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	Vapors may form explosive mixture with air.
Stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Risk of explosion with: Air Risk of ignition or formation of inflammable gases or vapours with: Nitric acid Oxidizing agents Powdered metals
Conditions to avoid	Warming.
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - 682 mg/kg Remarks: Behavioral:Muscle weakness. Behavioral:Ataxia. Cyanosis LC50 Inhalation - Rat - 4 h - 4420 ppm - vapor Remarks: Peripheral Nerve and Sensation:Spastic paralysis with or without sensory change. Behavioral:Excitement. Cyanosis Dermal: No data available
Skin corrosion/irritation	Skin - Rabbit Result: Mild skin irritation - 24 h
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation - 72 h
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).
Carcinogenicity	No data available
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Endocrine disrupting properties	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: KI9625000 Nausea, Headache, Vomiting, prolonged or repeated exposure can cause:, narcosis To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

Bioaccumulative potential	Bioaccumulation Cyprinus carpio (Carp) - 41 d at 20 °C(Silver nitrate) Bioconcentration factor (BCF): 70
Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: 27,1 % - Not readily biodegradable. (OECD Test Guideline 301D)
Toxicity to fish	NOEC - Oncorhynchus mykiss (rainbow trout) - 1,7 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - Daphnia - 0,1 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201) static test NOEC - Pseudokirchneriella subcapitata (green algae) - 100 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	EC50 - Photobacterium phosphoreum - 3.070 mg/l - 5 min Remarks: (IUCLID)
Mobility in soil	No Information 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	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

Disposal methods	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
Contaminated packaging	Dispose of as unused product.
Waste treatment Method	No data available

14. Transport information

UN number	ADR/RID: 2363	IMDG: 2363	IATA:2363
UN proper shipping name	ADR/RID: ETHYL MERCAPTAN IMDG:ETHYL MERCAPTAN IATA:ETHYL MERCAPTAN		
Transport hazard class(es)	ADR/RID: 3	IMDG: 3	IATA: 3
Packaging group	ADR/RID: I	IMDG: I	IATA: I
Environmental hazards	ADR/RID: NO	IMDG: NO	IATA: NO
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.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out
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. P5a FLAMMABLE LIQUIDS 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..

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.