

1. Product and Company Identification

www.rxmarine.com

Product Name Antifreeze Liquid
Part Number RXSOL-27-4020-011

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

Phone +91 22 20871200 - 1400
Fax +91 22 27612100 ::AOH :0091 9821214367
Email mail@rxmarine.com
Website www.rxmarine.com

2. Composition / Information on ingredients

www.rxmarine.com

Chemical Name	CAS No	Weight- %
Ethylene glycol	107-21-1	42-98
Proprietary Inhibitors	Proprietary	Proprietary
Potassium hydroxide	1310-58-3	0.2

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

3. Hazards Identification

www.rxmarine.com

Appearance Gold, Red or Green liquid
Physical State Liquid

Classification

Specific target organ toxicity (repeated exposure) Category 2

Hazard Statements

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

4. First Aid Measures

www.rxmarine.com

First Aid Measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention.

Skin contact Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If

Ingestion	breathing is difficult, give oxygen. Call a physician immediately Call a physician immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
<u>Most important symptoms and effects</u>	
Symptoms	May cause skin and eye irritation. May cause irritation to the mucous membranes and upper respiratory tract. Ingestion may cause nausea, vomiting, dizziness, and headache.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Notes to Physician	Persistent eye, skin, and respiratory disorders may be aggravated by exposure to this product. Persons with pre-existing kidney or liver disease may be at an increased risk from exposure to this material. Give sodium bicarbonate intravenously to treat acidosis. Urinalysis may show low specific gravity, proteinuria, pyuria, cylindruria, hematuria, calcium oxide, and hippuric acid crystals. Ethanol can be used in antidotal treatment but monitor blood glucose when administering ethanol because it can cause hypoglycemia. Consider infusion of a diuretic such as mannitol to help prevent or control brain edema and hemodialysis to remove ethylene glycol from circulation.

5. Fire-fighting Measures

www.rxmarine.com

Suitable extinguishing media	Foam. Dry chemical. Carbon dioxide (CO2).
Unsuitable extinguishing media	Water or foam may cause frothing. Do not scatter spilled material with high pressure water streams.
Specific Hazards Arising from the Chemical	Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard.
	In a fire or if heated, a pressure increase will occur and the container may burst, with the
	risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along
	the ground. Vapors may accumulate in low or confined areas or travel a considerable
	distance to a source of ignition and flash back.
	Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard.
	In a fire or if heated, a pressure increase will occur and the container may burst, with the
	risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along
	the ground. Vapors may accumulate in low or confined areas or travel a considerable
	distance to a source of ignition and flash back.
	Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard.
	In a fire or if heated, a pressure increase will occur and the container may burst, with the

risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along

the ground. Vapors may accumulate in low or confined areas or travel a considerable

distance to a source of ignition and flash back.

Toxic products of combustion. Collect contaminated fire extinguishing water separately. Do not allow it to enter drains or surface water.

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. Use water spray to keep fire-exposed containers cool. Water spray will also reduce fume and irritant gases.

6. Accidental Release Measures

www.rxmarine.com

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Ventilate affected area.

Environmental Precautions

Do not allow into any sewer, on the ground or into any body of water.

Methods and material for containment and cleaning up

Methods for Containment

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and

explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively,

or if water-insoluble, absorb with an inert dry material and place in an appropriate waste

disposal container. Dispose of via a licensed waste disposal contractor.

Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up

Soak up with inert absorbent material. Recover free liquid. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800)-424-8802.

7. Handling and Storage

www.rxmarine.com

Precautions for safe handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Protect container from physical damage. Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials.

Incompatible Materials

Strong oxidizing agents. Reacts violently with chlorosulfonic acid, oleum,

sulfuric acid, and perchloric acid. Causes ignition at room temperature with chromium trioxide, potassium permanganate and sodium peroxide. Also avoid contact with oxidizers such as chlorates, nitrates, peroxides, etc.

8. Exposure controls and personal protection

www.rxmarine.com

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol 107-21-1	Ceiling: 100 mg/m3 aerosol only	(vacated) Ceiling: 50 ppm	
Potassium hydroxide	Ceiling: 2 mg/m3	(vacated) Ceiling: 125 mg/m3 (vacated) Ceiling: 2 mg/m3	Ceiling: 2 mg/m3
1310-58-3			

Appropriate engineering controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Ventilation systems. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles)

Skin and Body Protection

Chemical resistant protective gloves. If potential for significant exposure to liquid exists, use full protective clothing and chemical boots.

Respiratory Protection

No respiratory protection is necessary during normal use conditions. In the case of insufficient ventilation or if exposure limits are exceeded, use a suitable NIOSH/MSHA respiratory device.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

www.rxmarine.com

Information on basic physical and chemical properties

Physical state	Liquid.
Appearance	Gold, Red or Green liquid
Colour	Gold, Red or Green
Odor	Mild
Odor Threshold	Not determined

<u>Property</u>	<u>Values</u>	Remarks ⓘ Method
pH	Not determined	
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	163-171 °C / 325-340 °F	
Flash point	121-123 °C / 250-254 °F	TOC
Evaporation rate	Not determined	
Flammability (solid, gas)	n/a-liquid	
	materials.Extremely flammable in the presence of the following materials or conditions: oxidizing	
	materials.	

Upper Flammability Limits	15.3
Lower Flammability Limit	3.2
Vapor pressure	Not available
Vapor density	Not available
Specific Gravity	1.115-1.133
Water Solubility	Completely soluble
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	398 °C / 748 °F
Decomposition Temperature	Not determined
Kinematic Viscosity	Not available
Dynamic Viscosity	Not available
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. Stability and reactivity

www.rxmarine.com

Reactivity	Not reactive under normal conditions.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Heat, flames, ignition sources and incompatibles.
Incompatible Materials	Strong oxidizing agents. Reacts violently with chlorosulfonic acid, oleum, sulfuric acid, and perchloric acid. Causes ignition at room temperature with chromium trioxide, potassium permanganate and sodium peroxide. Also avoid contact with oxidizers such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). Acrid smoke and fumes emitted if heated to decomposition.

11. Toxicological information

www.rxmarine.com

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene glycol	= 4000 mg/kg (Rat)	= 9530 µL/kg (Rabbit)	-
107-21-1			
Potassium hydroxide	= 214 mg/kg (Rat)	-	-
1310-58-3			

Information on physical, chemical and toxicological effects

Symptoms	Please see section 4 of this SDS for symptoms.
----------	--

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity

Not determined

12. Ecological information

www.rxmarine.com

Ecotoxicity

The LC50/96 hour values for fish are over 100 mg/L.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethylene glycol	6500 - 13000: 96 h	41000: 96 h Oncorhynchus	EC50 = 10000 mg/L 16 h	46300: 48 h Daphnia magna
107-21-1	Pseudokirchneriella	mykiss mg/L LC50 14 - 18:	EC50 = 620 mg/L 30 min	mg/L EC50
	subcapitata mg/L EC506500 - 13000: 96 h	96 h Oncorhynchus mykiss	EC50 = 620.0 mg/L 30 min	
	Pseudokirchneriella	mL/L LC50 static 27540: 96		
	subcapitata mg/L EC50	h Lepomis macrochirus		
		mg/L		
		LC50 static 40761: 96 h		
		Oncorhynchus mykiss mg/L		
		LC50 static 40000 - 60000:		
		96 h Pimephales promelas		
		mg/L LC50 static 16000: 96		
		h Poecilia reticulata mg/L		
		LC50 static		
Potassium hydroxide		80: 96 h Gambusia affinis		
1310-58-3		mg/L LC50 static		

Persistence/Degradability

When released into the soil, this material is expected to readily biodegrade. It also has the potential to leach into the groundwater. When released into water this material is expected to readily biodegrade. In water, this material is expected to have a half-life between 1 and 10 days.

Bioaccumulation

This material is not expected to significantly bioaccumulate.

Mobility

Chemical Name

Ethylene glycol

Partition Coefficient

-1.93

107-21-1

Potassium hydroxide

1310-58-3

13. Disposal considerations

www.rxmarine.com

Waste Treatment Methods

Disposal of Wastes

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name

Potassium hydroxide

1310-58-3

Chemical Name

Potassium hydroxide

1310-58-3

California Hazardous Waste Status

Toxic

Corrosive

California Hazardous Waste Status

Toxic

Corrosive

14. Transport information

www.rxmarine.com

Note

Regulated only in packages that contain 5000 lbs or greater of ethylene glycol. DOT information must be accompanied by the "RQ" notation.

DOT

UN3082

UN/ID No

Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)

Hazard Class

9

Packing Group

III

Reportable Quantity (RQ)

5000 lbs

IATA

Not regulated

IMDG

Not regulated

15. Regulatory information

www.rxmarine.com

International Inventories

TSCA

Listed

US Federal Regulations

CERCLA

Chemical Name

Hazardous Substances RQs

CERCLA/SARA RQ

Reportable Quantity (RQ)

Ethylene glycol

5000 lb

RQ 5000 lb final RQ

107-21-1		RQ 2270 kg final RQ
Potassium hydroxide	1000 lb	RQ 1000 lb final RQ
1310-58-3		RQ 454 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene glycol - 107-21-1	107-21-1	42-98	1.0

16. Other information

www.rxmarine.com

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 we 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.