

1. Product and Company Identification

www.rxmarine.com

Product Name **RXSOL-60-6123**
Product Type **ETHYL ALCOHOL AR. 99.9%**

Company Details:

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

Stock Point ::: Mumbai, Kamdla, Chennai, Visakhapatnam, Kolkata, Fujairah

Phone +91 22 27815540 / 41 / 42
Fax +91 22 2781 1318 :::AOH :0091 9821214367
Email mail@rxmarine.com
Website www.rxmarine.com

2. Composition / Information on ingredients

www.rxmarine.com

Chemica Name	CAS #	% by weight
Ethylalcohol 200 Proof	64-17-5	99.5

Toxicological Data on Ingredients: Ethyl alcohol 200 Proof: ORAL (LD50): Acute: 7060 mg/kg [Rat]. 3450 mg/kg [Mouse]. VAPOR (LC50):Acute: 20000 ppm 8 hours [Rat]. 39000 mg/m 4 hours [Mouse].

3. Hazards Identification

www.rxmarine.com

Potential Acute Health Effects

Hazardous in case of skin contact (irritant), of eye contact (irritant), .
hazardous in case of skin contact(permeator), of ingestion. Non-corro
corrosive to the eyes. Non-corrosive for lungs.

Potential Chronic Health Effects

Slightly hazardous in case of skin contact (sensitizer)

CARCINOGENIC EFFECTS

Classified PROVEN by State of California Proposition 65 [Ethyl alco
A4 (Not classifiable for human or animal.) by ACGIH [Ethyl alcohol

MUTAGENIC EFFECTS

Mutagenic for mammalian somatic cells. [Ethyl alcohol Mutagenic fo
yeast. [Ethyl alcohol].

TERATOGENIC EFFECTS

Classified PROVEN for human [Ethyl alcohol .

DEVELOPMENTAL TOXICITY

Classified Development toxin [PROVEN] [Ethyl alcohol . Classified
system/toxin/female, Reproductive system/toxin/male [POSSIBLE] [
Proof].The substance is toxic to blood, the reproductive system, liver,
tract, skin, central nervous

4. First Aid Measures

www.rxmarine.com

EyeContact

Check for and remove any contact lenses. Immediately flush eyes wit
for at least 15 minutes,keeping eyelids open. Cold water may be used.
attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water. Cover
with an emollient. Remove contaminated clothing and shoes. Cold wa
used.Wash clothing before reuse. Thoroughly clean shoes before reus
attention.

Serious Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with a
cream. Seek medical attention.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respirat

Serious Inhalation

Ingestion

Serious Ingestion

is difficult, give oxygen. Get medical attention if symptoms appear.
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Do NOT induce vomiting unless directed to do so by medical personnel. Do not give anything by mouth to an unconscious person. Loosen tight clothing such as a belt or waistband. Get medical attention if symptoms appear.
Not available.

5. Fire-fighting Measures

www.rxmarine.com

Flammability of the Product

Auto-Ignition Temperature

Flash Points

Flammable Limits

Products of Combustion

Fire Hazards in Presence of Various Substances

Explosion Hazards in Presence of Various Substances

Fire Fighting Media and Instructions

SMALL FIRE

LARGE FIRE

Special Remarks on Fire Hazards

Containers should be grounded.

CAUTION

Flammable.

The lowest known value is 363°C (685.4°F) (Ethyl alcohol 200 Proof).
CLOSED CUP: 18.5°C (65.3°F).(estimated)

The greatest known range is LOWER: 3.3% UPPER: 19% (Ethyl alcohol)

These products are carbon oxides (CO, CO₂).

Highly flammable in presence of open flames and sparks, of heat.
Slightly flammable to flammable in presence of oxidizing materials.
Non-flammable in presence of shocks, of reducing materials, of combinations of organic materials, of metals, of acids, of alkalis.

Slightly explosive in presence of open flames and sparks, of heat, of oxidizing materials, of acids.

Non-explosive in presence of shocks.

Flammable liquid, soluble or dispersed in water.

Use DRY chemical powder.

Use alcohol foam, water spray or fog.

MAY BURN WITH NEAR INVISIBLE FLAME Vapor may travel some distance to source of ignition and flash back. May form explosive mixture with air. Contact with Bromine pentafluoride is likely to cause fire or explosion. Ignites on contact with chromyl chloride. Ethanol ignites on contact with heptafluoride gas. It ignites and explodes upon contact with perchlorate. Addition of platinum black catalyst caused ignition. (Ethyl alcohol 200 Proof)

Special Remarks on Explosion Hazards:

Ethanol has an explosive reaction with the oxidized coating around potassium metal. Ethanol ignites and then explodes on contact with acetic anhydride + sodium (ignites and may explode), disulfuric acid + nitric acid, phosphorous(III) oxide platinum, potassium-tert-butoxide + acids. Ethanol forms explosive products in the following compound : ammonia + silver nitrate (forms silver nitride and silver fulminate), iodine + phosphorus (forms ethane iodide), magnesium perchlorate, mercuric nitrate, nitric acid + silver (forms silver fulminate) silver nitrate (forms ethyl nitrate) silver(I) oxide + ammonia or hydrazine (forms silver fulminate), sodium (evolves hydrogen gas). Sodium Hydrazide + alcohol can produce an explosion. Alcohols should not be mixed with mercuric nitrate. Mercuric fulminate may be formed. May form explosive mixture with manganese perchlorate + 2,2-dimethoxypropane. Addition of alcohols to highly concentrated hydrogen peroxide forms powerful explosives. Explodes on contact with calcium hypochlorite. Vapor may explode if ignited in an enclosed area. Containers may explode when heated or involved in a fire. (Ethyl alcohol 200 Proof)

6. Accidental Release Measures

www.rxmarine.com

Small Spill

Large Spill

Dilute with water and mop up, or absorb with an inert dry material and place in appropriate waste disposal container.

Flammable liquid. Keep away from heat. Keep away from sources of ignition. Do not leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined spaces if needed. Be careful that the product is not present at a concentration above the TLV. Check TLV on the MSDS and with local authorities.

7. Handling and Storage

www.rxmarine.com

Precautions

Keep locked up.. Keep away from heat. Keep away from sources of all equipment containing material. Do not ingest. Do not breathe vapor/spray. Wear suitable protective clothing. In case of insufficient suitable respiratory equipment. If ingested, seek medical advice immediately. Do not open the container or the label. Avoid contact with skin and eyes. Keep away from incompatible materials such as oxidizing agents, acids, alkalis, moisture.

Storage

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid sources of ignition (spark or flame). Do not store above 23°C (73.4°F).

8. Exposure controls and personal protection

www.rxmarine.com

Engineering Controls

Provide exhaust ventilation or other engineering controls to keep concentrations of vapors below their respective threshold limit values. Eyewash stations and safety showers are proximal to the work-station.

Personal Protection

Splash goggles. Lab coat. Vapor respirator. Be sure to use appropriate respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suitable clothing might not be sufficient; consult a specialist BEFORE handling.

Exposure Limits

Ethyl alcohol 200 Proof

TWA

1900 (mg/m³) from OSHA (PEL) [United States]

TWA

1000 (ppm) from OSHA (PEL) [United States]

TWA

1900 (mg/m³) from NIOSH [United States]

TWA

1000 (ppm) from NIOSH [United States]

TWA

1000 (ppm) [United Kingdom (UK)]

TWA

1920 (mg/m³) [United Kingdom (UK)]

TWA

1000 STEL: 1250 (ppm) [Canada]

Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

www.rxmarine.com

Physical state and appearance

Liquid.

Odor

Alcohol like. Mild to strong. Like wine or whiskey; Ethereal, vinous.

Taste

Burning. Pungent.

Molecular Weight

Not applicable.

Color

Clear Colorless.

pH (1% soln/water)

Neutral.

Boiling Point

The lowest known value is 78.5°C (173.3°F) (Ethyl alcohol 200 Proof). Weighted average: 79.58°C(175.2°F)

Melting Point

May start to solidify at -114.1°C (-173.4°F) based on data for: Ethyl alcohol

Critical Temperature

The lowest known value is 243°C (469.4°F) (Ethyl alcohol 200 Proof)

Specific Gravity

Weighted average: 0.8 (Water = 1)

Vapor Pressure

The highest known value is 5.7 kPa (@ 20°C) (Ethyl alcohol 200 Proof). Weighted average: 5.53 kPa (@ 20°C)

Vapor Density

The highest known value is 1.59 (Air = 1) (Ethyl alcohol 200 Proof). Weighted average: 1.54 (Air = 1)

Volatility

Not available.

Odor Threshold

100 ppm

Water/Oil Dist. Coeff	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, methanol, diethyl ether, acetone.
Solubility	Easily soluble in cold water, hot water, methanol, diethyl ether. Solub

10. Stability and reactivity

www.rxmarine.com

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials, heat, sources of ignition.
Incompatibility with various substances	Reactive with oxidizing agents, acids, alkalis.
Corrosivity	Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Ethanol rapidly absorbs moisture from the air. Can react vigorously with oxidizers. The following oxidants have been demonstrated to undergo vigorous/explosive reactions with ethanol: barium perchlorate, bromine pentafluoride, calcium hypochlorite, chloryl perchlorate, chromium trioxide, chromyl chloride, dioxygen difluoride, disulfuric acid, fluorine nitrate, hydrogen peroxide, iodine heptafluoride, nitric acid nitrosyl perchlorate, perchloric acid permanganic acid, peroxodisulfuric acid, potassium dioxide, potassium perchlorate, potassium permanganate, ruthenium(VIII) tetroxide, silver peroxide, uranium hexafluoride, uranyl perchlorate. Ethanol reacts violently/explosively with the following compounds: acetyl bromide (acetyl bromide) acetyl chloride, aluminum, sesquibromide ethylate, ammonium hydroxide & silver oxide, chlorate, chromic anhydride, cyanuric acid + water, dinitrogen tetroxide, sulfuric acid + nitrate (or) nitrite, hydrogen peroxide + sulfuric acid, iodine + methanol + mercuric oxide, manganese perchlorate + 2,2-dimethoxypropane, permanganates + sulfuric acid, potassium superoxide, potassium tert-butoxide, silver & nitric acid, silver perchlorate, sodium hydrazide, sulfuric acid + sodium dichromate, tetrachlorosilane. Ethanol is also incompatible with platinum, and sodium. No really safe conditions exist under which ethyl alcohol and chlorine oxides can be handled. Reacts vigorously with chlorine (Ethyl alcohol 200 Proof)

Special Remarks on Corrosivity:	Not available.
Polymerization	Will not occur.

11. Toxicological information

www.rxmarine.com

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 3632 mg/kg (Mouse) (Calculated value from LD50 of 3632 mg/kg)
Chronic Effects on Humans	
CARCINOGENIC EFFECTS	Classified PROVEN by State of California Proposition 65 [Ethyl alcohol 200 Proof]. Classified A4 (Not classifiable for human or animal.) by ACGIH [Ethyl alcohol 200 Proof].
MUTAGENIC EFFECTS	Mutagenic for mammalian somatic cells. [Ethyl alcohol 200 Proof]. Mutagenic for bacteria and/or yeast. [Ethyl alcohol 200 Proof].
TERATOGENIC EFFECTS	Classified PROVEN for human [Ethyl alcohol 200 Proof].
DEVELOPMENTAL TOXICITY	Classified Development toxin [PROVEN] [Ethyl alcohol 200 Proof]. Reproductive system/toxin/female, Reproductive system/toxin/male [Ethyl alcohol 200 Proof].
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of inhalation. Slightly hazardous in case of skin contact (permeator), of ingestion.
Special Remarks on Toxicity to Animals	
Lowest Published Dose/Conc	
LDL[Human] - Route	Oral; Dose: 1400 mg/kg
LDL[Human child] - Route	Oral; Dose: 2000 mg/kg
LDL[Rabbit] - Route	Skin; Dose: 20000 mg/kg (Ethyl alcohol 200 Proof)
Special Remarks on Chronic Effects on Humans	May affect genetic material (mutagenic) Causes adverse reproductive defects (teratogenic) , based on moderate to heavy consumption. May be based on animal data.
Human	passes through the placenta, excreted in maternal milk. (Ethyl alcohol 200 Proof)
Special Remarks on other Toxic Effects on Humans	

Acute potential health effects	
Skin	causes skin irritation
Eyes	causes eye irritation
Ingestion	May cause gastrointestinal tract irritation with nausea, vomiting, alterations in gastric secretions. May affect behavior/central nervous system depression - amnesia, headache, muscular incoordination, mild euphoria, slurred speech, drowsiness, staggering gait, fatigue, mood/personality, excessive talking, dizziness, ataxia, somnolence, hallucinations, distorted perceptions, general anesthetic), peripheral (spastic paralysis) vision (diplopia). Moderately toxic and narcotic at concentrations. May also affect metabolism, blood, liver, respiratory system, endocrine system. May affect respiratory tract, cardiovascular (cardiohypotension), and urinary systems.
Inhalation	May cause irritation of the respiratory tract and affect behavior/central nervous system with symptoms similar to ingestion
Chronic Potential Health Effects	Skin: Prolonged or repeated skin contact may cause dermatitis, an allergic reaction. Ingestion: Prolonged or repeated ingestion will have similar effects. It may also affect the brain. (Ethyl alcohol 200 Proof)

12. Ecological information
www.rxmarine.com

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, degradation products may arise
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic
Special Remarks on the Products of Biodegradation	Not available.

13. Disposal considerations
www.rxmarine.com

Waste Disposal	Waste must be disposed of in accordance with federal, state and local control regulations.
----------------	--

14. Transport information
www.rxmarine.com

DOT Classification	CLASS 3: Flammable liquid.
Identification	Ethanol (Ethyl alcohol 200 Proof) UNNA: 1170 PG: II
Special Provisions for Transport	Not available

15. Regulatory information
www.rxmarine.com

Federal and State Regulations	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm (which would require a warning under the statute: Ethyl alcohol 200 Proof beverage) California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Ethyl alcohol (in alcoholic beverage)
Connecticut hazardous material survey	Ethyl alcohol
Illinois toxic substances disclosure to employee act	Ethyl alcohol
Rhode Island RTK hazardous substances	Ethyl alcohol

Pennsylvania RTK	Ethyl alcohol
New Jersey	Ethyl alcohol
TSCA 8(b) inventory:	Water; Ethyl alcohol
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard 1910.1200).Health Hazard: 2 Fire Hazard: 3 Reactivity: 0 Personal Protection: h
National Fire Protection Association (U.S.A.)	Health: 2 Flammability: 3 Reactivity: 0 Specific hazard:
Protective Equipment	Gloves.Lab coat.Vapor respirator. Be sure to use an approved/certified equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

16. Other information

www.rxmarine.com

Other Special Considerations: Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation of the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com 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 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 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 connection 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.