

1. Product and Company Identification

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Product Name RXSOL-19-1171-210
Product Type ETHYL ALCOHOL

Company Details:

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

Stock Point ::: Mumbai. Kamdla. Chennai, Visakhapatnam, Kolkata, Fujairah, Muscat OMAN

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

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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

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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
CARCINOGENIC EFFECTS

Slightly hazardous in case of skin contact (sensitizer)

MUTAGENIC EFFECTS

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

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EyeContact

Check for and remove any contact lenses. Immediately flush eyes with 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 available. 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 shirt, belt or waistband. Get medical attention if symptoms appear.

Not available.

5. Fire-fighting Measures

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Flammability of the Product

Flammable.

Auto-Ignition Temperature

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

Flash Points

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

Flammable Limits

These products are carbon oxides (CO, CO2).

Products of Combustion

Highly flammable in presence of open flames and sparks, of heat.

Fire Hazards in Presence of Various Substances

Slightly flammable to flammable in presence of oxidizing materials.

Non-flammable in presence of shocks, of reducing materials, of compounds

of organic materials, of

metals, of acids, of alkalis.

Explosion Hazards in Presence of Various Substances

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

Non-explosive in presence of shocks.

Fire Fighting Media and Instructions

Flammable liquid, soluble or dispersed in water.

SMALL FIRE

Use DRY chemical powder.

LARGE FIRE

Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards

Containers should be grounded.

CAUTION

MAY BURN WITH NEAR INVISIBLE FLAME Vapor may be ignited at a considerable 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 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

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Small Spill

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

Large Spill

Flammable liquid. Keep away from heat. Keep away from sources of ignition. 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

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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. See 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

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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 an approved 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 protective 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

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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).
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).
Average:
5.53 kPa (@ 20°C)

Vapor Density

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

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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, dinitrogen tetroxide, fluorine nitrate, hydrogen peroxide, iodine heptafluoride, nitric acid nitrosyl perchlorate, perchloric acid permanganic acid, peroxydisulfuric acid, potassium dioxide, potassium perchlorate, potassium permanganate, ruthenium(VIII) tetroxide, silver perchlorate, silver peroxide, uranium hexafluoride, uranyl perchlorate. Ethanol reacts violently/expodes 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-dimethoxy propanone, 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 phosphorus pentachloride (Ethyl alcohol 200 Proof)

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

11. Toxicological information

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Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 3632 mg/kg (Mouse) (Calculated value from acute oral toxicity data)
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. Mutagenicity 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

Eyes

Ingestion

causes skin irritation

causes eye irritation

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. May affect respiratory tract, cardiovascular (cardiovascular hypotension), 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 to acute. It may also affect the brain. (Ethyl alcohol 200 Proof)

12. Ecological information

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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

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Waste Disposal

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

14. Transport information

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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

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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 effects which would require a warning under the statute: Ethyl alcohol 200 Proof (alcoholic 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 (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

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Other Special Considerations: Not available.

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