

1. Product and Company Identification

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Product Name ETHANOL (ABSOLUTE)

Part Number RXSOL-60-6188-500

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Product name	Cas No	EC No	Weight	Formula
Ethanol absolute	64-17-5	200-578-6	46,07 g/mol	C ₂ H ₆ O

3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P242 Use non-sparking tools. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Classification of the substance or mixture	No data available
Supplemental Hazard Statements	No data available
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. 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.

4. First Aid Measures

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General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation fresh air.
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. 4.2 Most important

Skin Contact	In case of skin contact Take off immediately all contaminated clothing. Rinse skin with water/ shower
Inhalation	No data available
Ingestion	No data available
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

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Flammability	No data available
Suitable extinguishing media	Water Foam Carbon dioxide (CO2) 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 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. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	No data available
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus..
Protective Equipment	No data available
Specific Hazards Arising from the Chemical	No data available

6. Accidental Release Measures

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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	No data available
Personal Protection	No data available
Environmental 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.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

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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	No data available
Hygiene measures	Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.
Advice on safe handling	For precautions see section 2.2.
Conditions for safe storage including any incompatibilities	No data available
Storage conditions	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Recommended storage

Storage class	temperature see product label
Specific end use(s)	Storage class (TRGS 510) 3 Flammable liquids
Advice on general occupational hygiene	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
	No data available

8. Exposure controls and personal protection

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Exposure controls	Personal protective equipment
Engineering Control	No data available
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)
Respiratory protection	Recommended Filter type Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepreneur 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	No data available

9. Physical and chemical properties

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Physical state	Liquid
Colour	Colorless
Odour	Alcohol-like bl
Odor Threshold	No data available
pH	7,0 at 10 g/l at 20 °C
Melting Point	-114,0 °C at 1.013,25 hPa
Boiling Point	78,29 °C at 1.013 hPa
Flash Point	13 °C - closed cup
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data Available
Upper/lower flammability or explosive limits	Upper explosion limit 27,7 %(V) Lower explosion limit 3,1 %(V)
Autoignition temperature	363 - 425 °C at 1.013 hPa
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Vapour pressure	> 0,1 hPa at 20 °C - OECD Test Guideline 104
Viscosity	Dynamic 1,2 mPa.s at 20 °C
Density	0,79 g/cm ³ at 20 °C
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	log Pow -0,35 at 24 °C - Bioaccumulation is not expected.
Explosive properties	No data available
Solubility	No data available
Ignition temperature	No data available
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	Vapors may form explosive mixture with air.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Risk of explosion/exothermic reaction with hydrogen peroxide perchlorates perchloric acid Nitric acid mercury(II) nitrate permanganic acid Nitriles peroxi compounds Strong oxidizing agents nitrosyl compounds Peroxides sodium Potassium halogen oxides calcium hypochlorite nitrogen dioxide metallic oxides uranium hexafluoride iodides Chlorine Alkali metals Alkaline earth metals alkali oxides Ethylene oxide silver with Nitric acid silver compounds with Ammonia potassium permanganate with conc. sulfuric acid Risk of ignition or formation of inflammable gases or vapours with halogen-halogen compounds chromium(VI) oxide chromyl chloride Fluorine hydrides Oxides of phosphorus platinum Nitric acid with potassium permanganate
Conditions to avoid	Warming
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - male and female - 10.470 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 4 h - 124,7 mg/l - vapor (OECD Test Guideline 403)
Skin corrosion/irritation	Skin - Rabbit No skin irritation - 24 h (OECD Test Guideline 404)
Serious eye damage/irritation	Eyes - Rabbit Causes serious eye irritation. (OECD Test Guideline 405)
Respiratory or skin sensitization	Maximization Test - Guinea pig negative (OECD Test Guideline 406) (in analogy to similar products) The value is given in analogy to the following substances: Methanol
Carcinogenicity	No data available
Germ cell mutagenicity	Test Type Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: dominant lethal test Species: Mouse Application Route: Oral Method: OECD Test Guideline 478 Result: Positive results were obtained in some in vivo tests.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Additional Information	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. Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 1.730 mg/kg - LOAEL (Lowest observed adverse effect level) - 3.200 mg/kg irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated 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. Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 1.730 mg/kg - LOAEL (Lowest observed adverse effect level) - 3.200 mg/kg irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties

12. Ecological information

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Persistence and degradability	Biodegradability aerobic - Exposure time 15 d Result: ca.95 % - Readily biodegradable. (OECD Test Guideline 301E) Biochemical Oxygen Demand (BOD) 930 - 1.670 mg/g Remarks: (Lit.) Theoretical oxygen demand 2.100 mg/g Remarks: (Lit.)
Toxicity to fish	Flow-through test LC50 - Pimephales promelas (fathead minnow) - 15.300 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Static test LC50 - Ceriodaphnia dubia (water flea) - 5.012 mg/l - 48 h (ECHA)
Toxicity	No data available
Toxicity to bacteria	Static test IC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to algae	Static test ErC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h (OECD Test Guideline 201)
Bioaccumulation potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected
Mobility in soil	No data 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 interference with wastewater treatment plants are to be expected when used properly. Discharge into the environment must be avoided.

13. Disposal considerations

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Product	No data available
Contaminated packaging	No data available
Waste treatment Method	No data available

14. Transport information

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UN number	ADR/RID:1170	IMDG:	IATA:
UN proper shipping name	ADR/RID:ETHANOL	IMDG:ETHANOL	IATA:ETHANOL
Transport hazard class(es)	ADR/RID:3	IMDG:3	IATA:3
Packaging group	ADR/RID: II	IMDG:II	IATA:II
Environmental hazards	ADR/RID:No	IMDG:No	IATA:No
Special precautions for user	Tunnel restriction code (D/E)		
Further information	No data available		

15. Regulatory information

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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.
Other regulations	Take note of Dir 94/33/EC on the protection of young people at work
Chemical Safety Assessment	A Chemical Safety Assessment has been carried out for this substance.

Other Information

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