

1. Product and Company Identification

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Product Name ETHYLENE DI CHLORIDE EDC
Part Number RXSOL-19-1181-250

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / Information on ingredients

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Product name	Cas No	EC No	Weight	Formula
1,2-Dichloroethane	107-06-2	203-458-1	98,96 g/mol	C ₂ H ₄ Cl ₂

3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H225 Highly flammable liquid and vapor. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H350 May cause cancer..
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P331 Do NOT induce vomiting.
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.

4. First Aid Measures

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General advice	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance
If inhaled	fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
Eye Contact	After eye contact: rinse out with plenty of water. Remove contact lenses.

Swallowed	After swallowing caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.
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 Hydrogen chloride gas 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	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
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: Avoid inhalation of dusts. 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
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	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.
Advice on safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of

Conditions for safe storage including any incompatibilities	vapours/aerosols
Storage conditions	No data available
Storage class	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.
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) 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: Viton® Minimum layer thickness 0,7 mm Break through time: 120 min Material tested Vitoject® (KCL 890 / Aldrich Z677698, Size M)
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. 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	Viscous liquid
Colour	Colorless
Odour	of solvents
Odor Threshold	No data available
pH	No data available
Melting Point	-35 °C - lit.
Boiling Point	83 °C - lit.
Flash Point	ca.13 °C - closed cup - DIN 51755 Part 1
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: 15,9 %(V) Lower explosion limit: 6 %(V)
Autoignition temperature	440 °C at 1.013 hPa - DIN 51794
Decomposition temperature	300 °C

Vapour pressure	87 hPa at 20 °C 102 hPa at 25 °C
Viscosity	Dynamic 0,83 mPa.s at 20 °C
Density	1,256 g/mL at 25 °C - lit
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	Log Pow 1,45 at 20 °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	Exothermic reaction with Alkaline earth metals alkali amides Nitric acid nitrogen oxides Oxidizing agents Chlorine powdered magnesium Zinc Risk of explosion with: Alkali metals powdered aluminium Powdered metals Potassium nitrogen dioxide
Conditions to avoid	Warming.
Incompatible materials	Various plastics, Light metals, Iron
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - male - 770 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 4 h - 7,8 mg/l - vapor(OECD Test Guideline 403) LD50 Dermal - Rabbit - male - 4.890 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - Rabbit Result: irritating (OECD Test Guideline 404)
Serious eye damage/irritation	Eyes - Rabbit Result: Eye irritation (OECD Test Guideline 405) A
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse negative (OECD Test Guideline 429)
Carcinogenicity	Presumed to have carcinogenic potential for humans
Germ cell mutagenicity	Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation positive (ECHA) Test Type: Ames test Test system: Escherichia coli Metabolic activation: without metabolic activation Method OECD Test Guideline 471 positive Test Type: In vitro mammalian cell gene mutation test Test system: human lymphoblastoid cells Metabolic activation: without metabolic activation Method OECD Test Guideline 476 Result: positive Test Type In vitro mammalian cell gene mutation test Test system: human lymphoblastoid cells Metabolic activation: without metabolic activation Result: positive (ECHA) Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Result: positive Remarks: (ECHA) Test Type: unscheduled DNA synthesis assay Test system: rat hepatocytes Metabolic activation: without metabolic activation Method: OECD Test Guideline 482 Result: positive Test Type: Micronucleus test Species: Mouse Application Route: Intraperitoneal Method: OECD Test Guideline 474 negative Test Type: Mutagenicity (mammal cell test): micronucleus. Species: Mouse Cell type: Red blood cells (erythrocytes) Application Route: Oral Method: OECD Test Guideline 474 Result: negative Test Type: sister chromatid exchange assay Species: Rat Cell type: mammary gland Application Route: inhalation (vapor) Result: negative (ECHA) Species: Drosophila melanogaster Cell typesperm Application Route:

Reproductive toxicity
Specific target organ toxicity - single exposure
Additional Information

Inhalation Method: OECD Test Guideline 477 Result: positive Test Type: Transgenic rodent somatic cell gene mutation assay Species: Mouse Application Route: Intraperitoneal negative (ECHA)

Based on available data the classification criteria are not met
May cause respiratory irritation

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 and female - Oral - 90 d - NOAEL (No observed adverse effect level) - 37,5 mg/kg Subchronic toxicity Repeated dose toxicity - Mouse - male and female - Inhalation - 104 Weeks RTECS: KI0525000 Acts as a simple asphyxiant by displacing air., anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated contact with skin may cause:, defatting, Dermatitis, Contact with eyes can cause:, Redness, Blurred vision, Provokes tears., Effects due to ingestion may include:, Gastrointestinal discomfort, Central nervous system depression, Paresthesia., Drowsiness, Convulsions, Conjunctivitis., Pulmonary edema. Effects may be delayed., Irregular breathing., Stomach/intestinal disorders, Nausea, Vomiting, Increased liver enzymes., Weakness, Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

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Persistence and degradability

Biodegradability aerobic - Exposure time 20 d Result: > 90 % - Inherently biodegradable. (ECHA)

Toxicity to fish

Flow-through test LC50 - Pimephales promelas (fathead minnow) - 136 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

Static test EC50 - Daphnia magna (Water flea) - 160 mg/l - 48 h Remarks: (in soft water) (IUCLID)

Toxicity

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia similis (Water flea) - > 100 mg/l - 48 h (Regulation (EC) No. 440/2008, Annex, C.2)

Toxicity to bacteria

Static test EC50 - activated sludge - 35.500 mg/l - 3 h (OECD Test Guideline 209))

Toxicity to algae

Static test EC50 - Desmodesmus subspicatus (green algae) - 166 mg/l - 72 h (OECD Test Guideline 201)

Bioaccumulation potential

Bioaccumulation Lepomis macrochirus - 14 d at 16 °C - 0,957 mg/l(1,2-Dichloroethane) Bioconcentration factor (BCF): 2

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 data available

13. Disposal considerations

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Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Contaminated packaging

No data available

14. Transport information

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UN number	ADR/RID:1184	IMDG1184	IATA:1184
UN proper shipping name	ADR/RID:ETHYLENE DICHLORIDE	IMDG:ETHYLENE DICHLORIDE	IATA:ETHYLENE DICHLORIDE
Transport hazard class(es)	ADR/RID:3 (6.1)	IMDG:3 (6.1)	IATA:3 (6.1)
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			

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	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.
Chemical Safety Assessment	A Chemical Safety Assessment was not carried out for this substance.

16. Other information

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Other Information

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