

## 1. Product and Company Identification

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Product Name Trichloroacetic acid  
Part Number RXSOL-19-1100-025

### 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
Trichloroacetic acid for analysis ACS,Reag. Ph Eur	76-03-9 EMSURE®	200-927-2	163,39 g/mol	C <sub>2</sub> HCl <sub>3</sub> O <sub>2</sub>

## 3. Hazards Identification

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Signal Word	Danger
Hazard Statements	H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects
Precautionary statements	P260 Do not breathe dust. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately 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.
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	After inhalation fresh air. Call in physician.
Eye Contact	After eye contact rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

Swallowed	After swallowing make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Skin Contact	In case of skin contact Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
Inhalation	No data available
Ingestion	No data available
Most important symptoms and effects, both acute and delay	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	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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 Not combustible. Fire may cause evolution of: Hydrogen chloride gas, Phosgene Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Ambient fire may liberate hazardous vapours.
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. 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	No data available
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	For precautions see section 2.2.

Conditions for safe storage including any incompatibilities	No data available
Storage conditions	No metal containers. Tightly closed. Dry. Recommended storage temperature see product label
Storage class	Storage class (TRGS 510) 8B Non-combustible, corrosive hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Advice on general occupational hygiene	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	Acid-resistant 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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a> ). Full contact Material: Viton® Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:KCL 890 Vitoject® 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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a> ). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 30 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)
Respiratory protection	Recommended Filter type Filter type B M 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	Solid
Colour	Colorless
Odour	Stinging
Odor Threshold	No data available
pH	1 at 81,7 g/l at 25 °C
Melting Point	54 °C
Boiling Point	196 °C at 1.013 hPa
Flash Point	> 113 °C - closed cup
Evaporation Rate	No data available
Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
Explosive limits	No data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	1 hPa at 51 °C
Viscosity	No data available

Density	1,63 g/cm <sup>3</sup> at 20 °C
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	Log Pow 1,33 - Bioaccumulation is not expected.
Explosive properties	No data available
Solubility	81,7 g/l at 20 °C - completely soluble
Ignition temperature	No data available
Particle characteristics	No data available

## 10. Stability and reactivity

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Reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Risk of explosion with: silver salt Exothermic reaction with: alkalines alkali hydroxides Amines Violent reactions possible with: Strong oxidizing agents sulfoxides dimethyl sulfoxide with Copper
Conditions to avoid	Exposure to moisture. Strong heating.
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 - 3.320 mg/kg (IUCALD)
Skin corrosion/irritation	Causes severe burns. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Serious eye damage/irritation	Causes serious eye damage
Respiratory or skin sensitization	Maximization Test - Guinea pig negative (OECD Test Guideline 406)
Carcinogenicity	No data available
Germ cell mutagenicity	In vivo tests did not show mutagenic effects 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: Positive results were obtained in some in vitro tests. Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: positive Test Type: In vivo micronucleus test Species: Mouse Cell type Bone marrow Application Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative
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 or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., 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 59 % - Not readily biodegradable (External MSDS)
Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity	No data available
Toxicity to bacteria	No data available
Toxicity to algae	No data available
Products Biodegradation	No data available
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	Biological effects Caustic even in diluted form. 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:1839 IMDG:1839 IATA:1839
UN proper shipping name	ADR/RID:TRICHLOROACETIC ACID IMDG:TRICHLOROACETIC ACID IATA:TRICHLOROACETIC ACID
Transport hazard class(es)	ADR/RID:8 IMDG:8 IATA:8
Packaging group	ADR/RID:II IMDG:II IATA:II
Environmental hazards	ADR/RID:Yes IMDG Marine pollutant:Yes IATA: No
Special precautions for user	Tunnel restriction code (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 was not carried out for this substance.

### 16. Other information

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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
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