Material Safety Data Sheet

Perchloroethylene (RXSOL-19-3760-300)

1. Product and Company Identifaction

Porduct Name	Perchloroethylene
Part Number	RXSOL-19-3760-300

Company Details:

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

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

Phone	+91 22 20871200 - 1400
Fax	+91 22 27612100 :::AOH :0091 9821214367
Email	mail@rxmarine.com
Website	www.rxmraine.com

2. Composition / informationon ingredients

Chemical Name	Cas No	EC No	Whight	Classification
Tetrachloroethylene EMPLURA®	127-18-4	204-825-9	165,83 g/mol	Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; Carc. 2;

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H300 + H310 Fatal if swallowed or in contact with skin.
Precautionary statements	P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/ protective clothing. P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Supplemental Hazard Statements	None
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

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Eye Contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
Inhalation	fresh air. Call in physician.
Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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

Flammability	May be combustible at high temperature.
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 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	Fire may cause the evolution of Sulphur oxides, nitrogen oxides.
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	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Has a fire-promoting effect due to the release of oxygen. Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Spillage	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Personal Protection	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Enviromental Precaution	Do not let product enter drains.
Methods and materials for containment and cleaning	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Advice on protection against fire and explosion	Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.
Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
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 vapours/aerosols.
Conditions for safe storage, including any incompatibilities	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Moisture sensitive.
Storage conditions	Protected from light.Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature see product label.
Storage class	Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Advice on general occupational hygiene	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

8. Exposure controls and personal protection

Exposure controls	No specific additional engineering controls are required. Provide good natural or artificial ventilation.
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
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	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: Viton® Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M) 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
Respiratory protection	Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur 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	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. Physical and chemical properties

Physical state	Liquid
Colour	Colorless
Odour	No data available
Odor Threshold	Not Applicable
pH	No data available
Melting Point	-22,0 °C
Boiling Point	120,0 - 122,0 °C
Flash Point	6 °C - closed cup
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
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	25,3 hPa at 25,0 °C 17,3 hPa at 20,0 °C
Viscosity	Viscosity, dynamic: 0,844 mPa.s at 25 °C
Density	1,62 g/cm3
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	log Pow: 2,53 at 23 °C
Explosive properties	No data available
Solubility	0,15 g/l at 25 °C
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	No data available
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Alkali metals Aluminum sodium amide Barium nitrogen dioxide Oxygen with alkali hydroxides Exothermic reaction with: strong alkalis Alkaline earth metals strong alkalis Light metals Powdered metals Oxidizing agents Strong acids Strong bases nitrous gases Risk of ignition or formation of inflammable gases or vapours with: zinc oxide with Aluminum
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	various plastics
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - 3.420 mg/kg (OECD Test Guideline 401) Remarks: (ECHA) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	Skin - Rabbit Result: Skin irritation - 4 h (OECD Test Guideli
Serious eye damage/irritation	Eyes - Rabbit Result: Mild eye irritation - 24 h (Draize Test) Remarks: (RTECS)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse Result: May cause sensitization by skin contact. (OECD Test Guideline 429) Remarks: (ECHA)
Carcinogenicity	Suspected of causing cancer.
Germ cell mutagenicity	Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Remarks: (ECHA) Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: without metabolic activation Method: OECD Test Guideline 471 Result: negative Remarks: (ECHA)
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Additional Information	RTECS: UF9625000 Lung irritation, Cyanosis, Central nervous system depression To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

Persistence and degradability	No data available
Toxicity to fish	flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 5 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 7,50 mg/l - 48 h
Toxicity	Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.520 mg/l - 96 h
Toxicity to bacteria	EC10 - Bacteria - 14 mg/l - 72 h Remarks: (Lit.) EC5 - E.coli - 15.000 mg/l Remarks: (Lit.) (maximum permissible toxic concentration)
Toxicity to algae	ErC50 - Chlamydomonas reinhardtii (green algae) - 3,64 mg/l - 72 h Remarks: (ECHA)
Products Biodegradation	The methods for determining the biological degradability are not applicable to inorganic substances.
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	No data available
Other adverse effects	No data available .

13. Disposal considerations

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

14. Transport information

UN number	ADR/RID:1897	IMDG:1897	IATA: 1897
UN proper shipping name	ADR/RID:TETRACHLOROETHYLENE	IMDG:TETRACHLOROETHYLENE	IATA:TETRACHLOROETHYLENE
Transport hazard class(es)	ADR/RID: 6.1	IMDG: 6.1	IATA:6.1
Packaging group	ADR/RID: III	IMDG: III	IATA:III
Environmental hazards	ADR/RID: No	IMDG: No	IATA: No
Special precautions for user	No data available		
Further information	Not classified as dangerous in the meaning of transport regulations.		

15. Regulatory information

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	For this product a chemical safety assessment was not carried out

16. Other information

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 weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.

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