Material Safety Data Sheet

Toluene Lab Grade 2.5 Ltrs Glass Bottle (RXSOL-20-1202-002)

1. Product and Company Identifaction

Product Name	:	Toluene Lab Grade 2.5 Ltrs / 5 Ltr Bottle
Part Number	:	RXSOL-20-1202-002

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

Branch : Kandla, Sikka, Dahej, Hazira, JNPT, Goa, Mangalore, Cochin, Tuticorin, Chennai, Kakinada, Vizag, Paradip, Kolkata, UAE, Singapore.

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2. Composition / informationon ingredients

Name of Substance	Cas Number	EINECS No	Wt.%	Symbol
Toluene	108-88-3	203-625-9	100%	Xi, Xn

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H361d Suspected of damaging the unborn child. H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
Precautionary statements - prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P240 Ground/bond container and receiving equipment. Response P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P314 Get medical advice/ attention if you feel unwell. Storage
Precautionary statements - response	P403 + P233 Store in a well-ventilated place. Keep container tightly closed. According to the criteria, the general hazard statement can be replaced by the hazard statement indicating only the property of concern, where either fertility or developmental effects are proven to be not relevant. See Annex VI, 1.2.3, General hazard statement not specifying the route of exposure as the necessary information is not available. See Annex VI, 1.2.2. Get medical attention/advice if you feel unwell

4. First Aid Measures

After Inhalation	Fresh air. Call in physician.

Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
Eye contact	Rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Call a physician immediately. Pulmonary failure possible after aspiration of vomit.
Most important symptoms and effects, both acute and delayed	Irritant effects, Headache, Drowsiness, Dizziness, Nausea, Vomiting, inebriation, Convulsions, somnolence, Circulatory collapse, CNS disorders, respiratory paralysis, respiratory arrest, Unconsciousness, death
Indication of any immediate medical attention and special treatment needed	No information available.

5. Fire-fighting Measures

Suitable extinguishing media	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	Combustible. Pay attention to flashback. Vapours 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.
Advice for firefighters	Special protective equipment 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.
Further information	Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapours, 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. Advice for emergency responders: Protective equipment see section 8.
Environmental precautions	Do not let product enter drains. Risk of explosion.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Reference to other sections	Indications about waste treatment see section 13.

7. Handling and Storage

Advice on safe handling	Observe label precautions. Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Storage conditions	Recommended storage temperature see product label.
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls and personal protection

Hand protection	Glove material: Viton (R) Glove thickness: 0.70 mm Break through time: > 480 min splash contact: Glove material: Viton (R) Glove thickness: 0.70 mm Break through time:> 480 min The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 890 Vitoject® (full contact), KCL 890 Vitoject® (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. 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).
Other protective equipment	Flame retardant antistatic protective clothing.
Respiratory protection	Required when vapours/aerosols are generated. 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.
Environmental exposure controls	Do not let product enter drains. Risk of explosion.

9. Physical and chemical properties

Form	Liquid
Colour	Colourless
Odour	Characteristic
Odor Threshold	0.2 - 68.6 ppm
pH	Not Applicable
Melting Point	-95 °C
Boiling Point	110.6 °C at 1,013 hPa
Flash Point	4 °C at 1,013 hPa Method: c.c.
Evaporation Rate	No information available.
Flammability (solid, gas)	No information available.
Explosive limits	Lower explosion limit 1.1 %(V) Upper explosion limit 7.1 %(V)
Vapour pressure	29 hPa at 20 °C
Vapour Density	3.18
Density	0.87 g/cm3 at 20 °C
Relative density	No information available.
Water solubility	0.52 g/l at 20 °C
Partition coefficient: n-octanol/water	log Pow: 2.65(experimental) (IUCLID) Bioaccumulation is not expected.
Auto-ignition temperature	No information available.
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity, dynamic	0.6 mPa.sat 20 °C
Explosive properties	Not classified as explosive.
Oxidizing properties	None

Ignition temperature	535 °C Method: DIN 51794
Viscosity, kinematic	0.7 mm2/s at 20 °C
Conductivity	0.01 ?S/cm

10. Stability and reactivity

Hazardous Pollymerization: No

Condition To Avoid Pollymerization : NA

Stability : Stable

Condition To Avoid Instability : NA

Materials and Conditions To Avoid: Strong Oxidizing agents
Hazardous Docompositions Products : None

11. Toxicological information

Acute oral toxicity	LD50 Rat: 5,580 mg/kg. Tested according to Directive 92/69/EEC.
Symptoms	Nausea, Vomiting
Acute inhalation toxicity	LC50 Rat: 25.7 mg/l; 4 h ; vapour OECD Test Guideline 403
Symptoms	Irritation symptoms in the respiratory tract. Absorption.
Acute dermal toxicity	LD50 Rabbit: 12,124 mg/kg
Skin irritation	Rabbit Result: irritating Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.Causes skin irritation.
Eye irritation	Rabbit Result: No eye irritation (ECHA) Sensitisation :This information is not available.Germ cell mutagenicity Genotoxicity in vivo
Chromosome aberration test	Rat (i.p.) Bone marrow Result: negative (ECHA) Genotoxicity in vitro In vitro mammalian cell gene mutation test Mouse lymphoma test Result: negative Method: OECD Test Guideline 476
Ames test	Result: negative
Carcinogenicity	This information is not available.
Reproductive toxicity	This information is not available.
Teratogenicity	This information is not available.
CMR effects Teratogenicity:	Suspected of damaging the unborn child. Specific target organ toxicity - single exposure May cause drowsiness or dizziness.Target Organs: Central nervous system
Specific target organ toxicity	Repeated exposure May cause damage to organs through prolonged or repeated exposure.
Target Organs:	Central nervous system Aspiration hazard : Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.
Further Information	Systemic effects: After absorption of large quantities: Headache, Vomiting, Nausea, Dizziness, CNS disorders, inebriation, Convulsions, Circulatory collapse, respiratory paralysis, respiratory arrest, Unconsciousness, death.Other dangerous properties can not be excluded. This substance should be handled with particular care.

12. Ecological information

Toxicity to fish	LC50 Oncorhynchus mykiss (rainbow trout): 5.8 mg/l; 96 h (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	EC50 Daphnia magna (Water flea): 6 mg/l; 48 h (ECOTOX Database) NOEC E.sulcatum: 456 mg/l; 72 h (IUCLID)
Toxicity to algae	IC50 Pseudokirchneriella subcapitata (green algae): 12 mg/l; 72 h (Lit.)
Toxicity to bacteria	EC50 Photobacterium phosphoreum: 20 mg/l; 30 min (Lit.)
Biodegradability	69 - 81 %; 5 d; aerobic APHA NO. 219 (ECHA) Readily biodegradable
Theoretical oxygen demand (ThOD)	3,130 mg/g (Lit.)
Bioaccumulative potential	Partition coefficient: n-octanol/water log Pow: 2.65 (experimental) (IUCLID) Bioaccumulation is not expected.
Mobility in soil	Distribution among environmental compartments Adsorption/Soil log Koc: 2.15 (experimental) Moderately mobile in soils (Lit.)
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	Henry constant 683 Pa*m³/mol (Lit.) Distribution preferentially in air. Discharge into th e environment must be avoided.

13. Disposal considerations

Waste treatmentMethods	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. 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

Land transport (ADR/RID)

UN number	UN 1294
Proper shipping name	TOLUENE
Class	3
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
Tunnel restriction code	D/E
Inland waterway transport (ADN)	Not relevant

Air transport (IATA)

UN number	UN 1294
Proper shipping name	TOLUENE
Class	3
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes

Sea transport (IMDG)

UN number	UN 1294
Proper shipping name	TOLUENE
Class	3
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not relevant

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture National legislation	Storage class
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 we assume 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.