Material Safety Data Sheet

Methane Sulfonic Acid (RXSOL-28-7222-025)

1. Product and Company Identifaction

Porduct Name	Methane Sulfonic Acid
Part Number	RXSOL-28-7222-025

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

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Email	mail@rxmarine.com
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2. Composition / informationon ingredients

Product name	Cas No	EC No	Weight	Formula
Methanesulfonic acid for synthesis	75-75-2	200-898-6	96,11 g/mol	CH_4O_3S

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.
Precautionary statements	P234 Keep only in original packaging. P261 Avoid breathing mist or vapors. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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

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 import
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 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	No data available
Suitable extinguishing media	Carbon dioxide (CO2) Dry powder Water Foam
Unsuitable extinguishing media	No data available
Special hazards arising from the substance or mixture	Carbon oxides Sulfur oxides Combustible. Fire may cause evolution of: Sulfur oxides Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
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

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
Enviromental 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

Advice on protection against fire and explosion	No data available
Incompatible materials	No data available
Hygiene measures	No data available
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. Recommended storage temperature see product label
Storage class	Storage class (TRGS 510) 8A 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

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: 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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 120 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)
Respiratory protection	Recommended Filter type Filter type B 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	No data available

9. Physical and chemical properties

Physical state	Liquid
Colour	Colorless
Odour	Characteristic
Odor Threshold	No data available
pH	1 at 20 °C
Melting Point	20 °C
Boiling Point	167 °C at 13,3 hPa
Flash Point	189 °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 24,3 %(V) Lower explosion limit 11,4 %(V)
Autoignition temperature	535 °C at 1.010 hPa - DIN 51794
Decomposition temperature	No data available
Vapour pressure	0,112 hPa at 80 °C - OECD Test Guideline 104
Viscosity	Kinematic 7,86 mm2/s at 25 °C Dynamic 11,6 mPa.s at 25 °C
Density	1,4812 g/cm3 at 18 °C
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	Log Pow -2,38 at 20 °C - - Bioaccumulation is not expected.
Explosive properties	No data available
Solubility	ca.1.000 g/l at 20 °C - completely miscible
Ignition temperature	No data available
Particle characteristics	No data available

10. Stability and reactivity

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)
Possibilityof hazardous reactions	Violent reactions possible with strong alkalis Oxidizing agents strong reducing agents Amines Hydrogen fluoride acids strong alkalis Bases Risk of explosion with: Hydrogen fluoride Exothermic reaction with: Water
Conditions to avoid	Strong heating.
Incompatible materials	Various metals, i.a., Iron, Copper, brass, Mild steel

Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	Acute toxicity estimate Oral - 648,76 mg/kg (Calculation method) LD50 Oral - Rat - male and female - 648,7 mg/kg (OECD Test Guideline 401)Acute toxicity estimate Dermal - > 2.000 mg/kg (Calculation method) LD50 Dermal - Rabbit - male and female - 2.000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - In vitro study Causes burns. - 4 h (OECD Test Guideline 435
Serious eye damage/irritation	Eyes - Rabbit Causes burns. (OECD Test Guideline 405)
Respiratory or skin sensitization	Buehler Test - Guinea pig negative (OECD Test Guideline 406)
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: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Oral Method: OECD Test Guideline 47
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Additional Information	he 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 - 7 Days - NOAEL (No observed adverse effect level) - >= 1.805 mg/kg Remarks: (ECHA) 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

Persistence and degradability	Biodegradability aerobic Chemical oxygen demand - Exposure time 28 d Result: 90 - 100 % - Readily biodegradable. (OECD Test Guideline 301A)
Toxicity to fish	Static test LC50 - Oncorhynchus mykiss (rainbow trout) - 73 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 70 mg/l - 48 h (OECD Test Guideline 202)
Toxicity	No data available
Toxicity to bacteria	Static test EC50 - activated sludge - > 1.000 mg/l - 0,5 h (OECD Test Guideline 209)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 12 - 24 mg/l - 72 h (OECD Test Guideline 201)
Products Biodegradation	No data available
Mobility in soil	No data availalble
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

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

14. Transport information

UN number	ADR/RID:3265	IMDG:3265	IATA:3265
UN proper shipping name	ADR/RID:CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic acid)	IMDG:CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic acid)	IATA:CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulfonic 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:No	IMDG:No	IATA:No
Special precautions for user	Tunnel restriction code (E)		
Further information	No data available		

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	A Chemical Safety Assessment has been carried out for this substance.

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. DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.