Material Safety Data Sheet

PROPIOLACTONE BETA (RXSOL-19-1427-210)

1. Product and Company Identifaction

Product Name	PROPIOLACTONE BETA
Part Number	RXSOL-19-1427-210

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.comA

2. Composition / informationon ingredients

Chemical Name	CAS	EC number	Weight
Beta-Propiolactone	57-57-8	--	= 100 %

3. Hazards Identification

Signal Word	Danger
Hazard Statements	Combustible liquid Causes skin irritation Causes serious eye irritation Fatal if inhaled May cause cancer
Precautionary statements	Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Do not breathe dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Wear respiratory protection Wash face, hands and any exposed skin thoroughly after handling Wear eye/face protection Keep away from heat/sparks/open flames/hot surfaces. - No smoking Keep cool Response IF exposed or concerned: Get medical attention/advice Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Immediately call a POISON CENTER or doctor/physician Skin IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse Eyes IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention Fire In case of fire: Use CO2, dry chemical, or foam for extinction Storage Store locked up Store in a well-ventilated place. Keep container tightly closed Disposal Dispose of contents/container to an approved
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Supplemental Hazard Statements	EUH032 Contact with acids liberates very toxic gas.
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 safety data sheet to the doctor in attendance. Immediate medical attention is required.
If inhaled	After inhalation: fresh air.
Eye Contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Swallowed	After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
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	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomitin
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

Flammability	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Suitable extinguishing media	Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containe
Unsuitable extinguishing media	No information available
Special hazards arising from the substance or mixture	Carbon oxides Sulfur oxides Combustible. 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	Carbon monoxide (CO). Carbon dioxide
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus.
Protective Equipment	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and va
Specific Hazards Arising from the Chemical	Oxides of phosphorus Sodium oxides Not combustible. Fire may cause evolution of: Oxides of phosphorus Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
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.
Enviromental Precaution	Should not be released into the environme
Methods and materials for containment and cleaning	Keep in suitable, closed containers for disposal. Soak up with inert absorbent material .

7. Handling and Storage

Handling	Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate
Storage	Keep away from heat, sparks and flame. Protect from light. Store in freezer. Store contents under argon. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Acids. Bases. Strong oxidizing agents. Strong acids. Strong bases. Halogens.

8. Exposure controls and personal protection

Exposure controls	Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Control parameters	Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.

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	Tight sealing safety goggles. Face protection
Skin / Body protection	Wear appropriate protective gloves and clothing to prevent skin exosure.
Respiratory protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not let product enter drains.

9. Physical and chemical properties

Physical state	Liquid
Colour	Colorless
Odour	pungent
Odor Threshold	No data available
pH	No data available
Melting Point	33 °C / -27.4 °F
Boiling Point	162 °C / 323.6 °F
Flash Point	No data available
Evaporation Rate	70 °C / 158 °F
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	155 °C
Vapour pressure	2.90%
Density	No data available
Relative Density	2.5 (Air = 1.0)
Relative vapor density	No data available
Freezing point	No data available
Viscosity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	Miscible with wate
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	None known, based on information available
Stability	Moisture sensitive.
Possibility of hazardous reactions	No data available
Conditions to avoid	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moist air or water. Exposure to light.
Incompatible materials	Acids, Bases, Strong oxidizing agents, Strong acids, Strong bases, Halogen
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO2)

11. Toxicological information

Acute toxicity	Oral: No data available Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	Remarks: No data available
Serious eye damage/eye irritation	Remarks: No data available
Respiratory or skin sensitization	No data available
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. May cause cancer.
Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Special Remarks on other Toxi Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism.
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.

12. Ecological information

Bioaccumulative potential	No data available
Persistence and degradability	Soluble in water Persistence is unlikely based on information available.
Toxicity to fish	LC50 - Lepomis macrochirus (Bluegill) - 0,24 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	Flow-through test EC50 - Ceriodaphnia dubia (water flea) - 0,035 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	Flow-through test NOEC - algae - 0,002 mg/l - 7 Days Remarks: (in analogy to similar products) (ECHA) The value is given in analogy to the following substances: sodium hypochlorite solution
Toxicity to bacteria	Static test EC50 - activated sludge - 563 mg/l - 3 h (OECD Test Guideline 209) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: sodium hypochlorite solution
Mobility in soil	Will likely be mobile in the environment due to its water solubility.
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

Disposal methods	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
Contaminated packaging	Dispose of as unused product.
Waste treatment Method	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

UN number	ADR/RID:3382	IMDG:3382	IATA:3382
UN proper shipping name	ADR/RID:beta.-Propiolactone	IMDG: beta.-Propiolactone	IATA:beta.-Propiolactone
Transport hazard class(es)	ADR/RID:6.1	IMDG:6.1	IATA:6.1
Packaging group	ADR/RID: I	IMDG: I	IATA: I
Environmental hazards	ADR/RID: NO	IMDG: NO	IATA: NO
Further information	No data available		

15. Regulatory information

Inventory status	Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65.
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. 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.