Material Safety Data Sheet

Resin Cation (RXSOL-32-3112-500)

1. Product and Company Identifaction

Product Name	: Resin Cation
Part Number	: RXSOL-32-3112-500

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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2. Composition / informationon ingredients

Chemical Name	CAS Number	Weight
Diethyenyl-benzene polymer with ethenylbenzene, sulfonated	69011-22-9	65-70%
De-ionized water	007732-18-5	30-35%

3. Hazards Identification

Signal Word	Warning
Hazard Statements	P261 Avoid breathing dust. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves, clothing, and eye protection.
Precautionary statements - prevention	P302+P352 IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P304+P340 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305+P351+P338P312 Call a POISON CONTROL CENTER or doctor if you feel unwell. P332+P313 If skin irritation occurs, seek medical attention. P337+P313 If eye irritation persists, get medical attention. P362+P364 Take off contaminated clothing and wash before reuse
Precautionary statements - response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. **Storage:** Store locked up. Store in corrosive resistant stainless steel container with a resistant inner liner. **Disposal:** Dispose of contents/ container to an approved waste disposal plant.

4. First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation:	If inhaled, If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Ingestion:	If swallowed, do not induce vomiting. Allow victim to rinse his mouth and then to drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Call a physician.
Notes to Physicians	Treat symptomatically.

5. Fire-fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective Equipment	Use personal protective equipment.
Combustion products	Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Sulfur oxides. Organic sulfonates. Hydrocarbons. Carbon monoxide. Carbon dioxide. Benzene compounds.
Advice for firefighters	Wear self-contained breathing apparatus. Wear full protective equipment.
Specific extinguishing methods	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Personal precautions	Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Enviromental Precaution	Do not allow contact with soil, surface or ground water.If the products get into drains, inform the relevant authorities immediately.
Methods and materials for containment and cleaning up	Contain spilled material if possible. Sweep up. Recover spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage

Advice on safe handling	Static electricity can accumulate on dry beads. Leave room for expansion as dry resin swells upon wetting and/or changing ionic form. Equipment construction material should be compatible with feed, regenerant, ionic form and effluent of the ion exchange process. Avoid contact with eyes. Avoid generating and breathing dust. Wash thoroughly after handling. Keep container closed. Good housekeeping and controlling of dusts are necessary for safe handling of product. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.
Storage	Normal warehouse storage in cool, dry area is satisfactory. Storage temperature: 0 to 50 °C (32 to 122°F) Recommended shelf Life: Use within 36 months Preferred Storage temperature is in the lower half of the range given below. Keep away from strong oxidizers. Specific End Use(s) Apart from the uses mentioned in section 1 no other specific uses are stipulated.
General Advice	Wash hands after use. Do not to eat, drink and smoke in work areas.

8. Exposure controls and personal protection

Engineering Control	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Control Parameter	Contains no substances with occupational exposure limit values.

Personal Protection	**Eye/face protection**: Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. **Skin protection** Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Neoprene. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. **Other protection**: Wear clean, body-covering clothing. **Respiratory protection:** Under intended handling conditions, no respiratory protection should be needed.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form	Bead
Colour	Yellow
Odour	Odourless
Boiling point and boiling range	Not Applicable
Flash Point	Not Applicable
Freezing Point	Not Applicable
pH	Not Applicable
Evaporation rate	Not Applicable
Flammability (solid, gas)	No data available
Upper explosion limit	Not Applicable
Lower explosion limit	Not Applicable
Explosive properties	No data available
Vapor pressure	Not Applicable
Relative vapor density	Not Applicable
Relative density	1.20 - 1.28
Water solubility	Insoluble in water
Solubility in other solvents	Not Applicble
Partition coefficient: octanol	No data available
Autoignition temperature	Not Applicable
Thermal decomposition	Not Applicable
Viscosity, kinematic	Not Applicable
Explosive properties	Not Applicable
Oxidizing properties	Not Applicable

10. Stability and reactivity

Recativity	No dangerous reaction known under conditions of normal use.
Stability	Stable under recommended storage conditions
Possibility of hazardous reactions	Polymerization will not occur.
Incompatible materials	Avoid contact with oxidizing materials. Oxidizing agents such as nitric acid attack organic exchange resins under certain conditions. Before using strong oxidizing agents, consult sources knowledgeable in handling such materials. The severity of the reaction with oxidizing materials can vary from slight degradation to an explosive reaction.
Hazardous Decomposition	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds. Hydrocarbons. Organic sulfonates. Sulfur oxides.
Condition to Avoid	Exposure to elevated temperatures can cause product to decompose.

11. Toxicological information

Route of Exposure	Sensitization, Eye contact, Skin contact
Eyes	May cause slight temporary eye irritation. Solid or dust may cause irritation or corneal injury due to mechanical action
Skin	Prolonged exposure not likely to cause significant skin irritation. May cause more severe response if skin is abraded (scratched or cut).
Ingestion	Not Applicable
Inhalation	Vapors are unlikely due to physical properties. No adverse effects are anticipated from inhalation. For respiratory irritation and narcotic effects: No relevant data found. As product: The LC50 has not been determined.,
Chronic Exposure	Health injuries are not known or expected under normal use.
Acute oral toxicity	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Typical for this family of materials. LD50, Rat, > 5,000 mg/kg
Acute inhalation toxicity	No adverse effects are anticipated from inhalation. For respiratory irritation and narcotic effects: No relevant data found. As product: The LC50 has not been determined.,
Acute dermal toxicity	No adverse effects anticipated by skin absorption. The dermal LD50 has not been determined.,
Classification	OSHA Hazard Communication Standard 29CFR 1910.1200.

12. Ecological information

Environmental Effects	No data available
Toxicity to fish	Acute toxicity to fish Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life
Toxicity to daphnia and others	No data available
Toxicity to algae	No data available
Biodegradability	This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
Bioaccumulative potential	No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).
Mobility in soil	In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

13. Disposal considerations

Remarks	Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.
Waste Disposal	DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Landfill.

14. Transport information

Hazard Pictograms:

DOT	Not regulated for transport

Classification for SEA transport (IMO-IMDG):	Not regulated for transport
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Not regulated for transport
Classification for AIR transport (IATA/ICAO)	Not regulated for transport

15. Regulatory information

OSHA Hazard Communication Standard	This product is not a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312	This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.
California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)	This product contains no listed substances knownto the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.
United States TSCA Inventory (TSCA)	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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.