



# Safety Data Sheet

## Section 01 - Identification

<b>Product Identifier</b>	Resinex MX-1, Resinex MX-11
<b>Other Means of Identification</b>	Styrene-Divinylbenzene-Copolymer with sulphonated and quaternary ammonium functional group.
<b>Product Use and Restrictions on Use</b>	Demineralization, polishing after demineralization, mixed bed cartridges.
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
<b>24-Hour Emergency Phone</b>	Phone: 1 (306) 664 – 2522

## Section 02 - Hazard Identification

### GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

## Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Crosslinked polystyrene divinylbenzene (hydrogen/hydroxide form)		30-65%	
Water	7732-18-5	35-70%	

## Section 04 - First Aid Measures

<b>Inhalation</b>	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention if irritation persists.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
<b>Eye Contact</b>	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek medical attention if irritation occurs or persists.
<b>Ingestion</b>	Give water to drink if conscious. Seek medical attention if discomfort occurs.
<b>Additional Information</b>	Not Available

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Dry chemical, foam, CO <sub>2</sub> , water.
<b>Unsuitable Extinguishing Media</b>	Not Available
<b>Specific Hazards Arising From the Chemical</b>	Combustion by-products may include carbon monoxide, carbon dioxide, sulphur oxides, monomers and organic compounds.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
<b>Further Information</b>	Not Available

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## Section 06 - Accidental Release Measures

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<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
<b>Environmental Precautions</b>	Ensure spilled product does not enter sewage systems as ion-exchange resins might change the pH of receiving waters.
<b>Methods and Materials for Containment and Cleaning Up</b>	Sweep-up material and transfer to containers for disposal.

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## Section 07 - Handling and Storage

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<b>Precautions for Safe Handling</b>	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
<b>Conditions for Safe Storage</b>	Store in a cool place, separated from food materials and strong oxidizing agents (i.e. nitric acid). Keep bags sealed to avoid dehydration. Ideal storage temperature is 1°C-40°C.
<b>Incompatibilities</b>	Strong oxidizers, reducing agents.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Crosslinked polystyrene divinylbenzene (hydrogen/hydroxide form)	Not Available		

### Engineering Control(s)

<b>Ventilation Requirements</b>	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
<b>Other</b>	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

<b>Eyes/Face</b>	No specific requirements, but it is good practice to wear chemical safety glasses while product is being handled.
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<b>Hand Protection</b>	No specific requirements, but it is good practice to prevent skin contact by wearing impervious gloves of chemically resistant material.
<b>Skin and Body Protection</b>	No specific requirements, but it is good practice to prevent skin contact by wearing body suite, aprons, and/or coveralls. No special footwear is required other than what is mandated at place of work.
<b>Respiratory Protection</b>	Respiratory protection is not normally required.
<b>Thermal Hazards</b>	Not Available

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## **Section 09 - Physical and Chemical Properties**

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### **Appearance**

<b>Physical State</b>	Solid, translucent beads
<b>Colour</b>	Yellow
<b>Odour</b>	Slight amine odour
<b>Odour Threshold</b>	Not Available

### **Property**

<b>pH</b>	Neutral (suspension in water).
<b>Melting Point/Freezing Point</b>	Not Available
<b>Initial Boiling Point and Boiling Range</b>	Not Available
<b>Flash Point</b>	Not Available
<b>Evaporation Rate</b>	Not Available
<b>Flammability</b>	Non-Flammable
<b>Upper Flammable Limit</b>	Not Available
<b>Lower Flammable Limit</b>	Not Available
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Available
<b>Vapour Density (Air=1)</b>	Not Available
<b>Relative Density</b>	740kg/m <sup>3</sup>
<b>Solubility(ies)</b>	Insoluble in water
<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Auto-ignition Temperature</b>	>250°C
<b>Decomposition Temperature</b>	Not Available
<b>Viscosity</b>	Not Available

<b>Explosive Properties</b>	Contact with strong oxidizing substances may react violently with ion exchange resins and cause explosive type reactions.
<b>Specific Gravity (Water=1)</b>	Not Available
<b>% Volatiles by Volume</b>	Not Available
<b>Formula</b>	Not Available
<b>Molecular Weight</b>	Not Available

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## Section 10 - Stability and Reactivity

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<b>Reactivity</b>	Not Available
<b>Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Polymerization will not occur.
<b>Conditions to Avoid</b>	Not Available
<b>Incompatible Materials</b>	Strong oxidizers, reducing agents.
<b>Hazardous Decomposition Products</b>	Combustion by-products may include carbon monoxide, carbon dioxide, sulphur oxides, monomers and organic compounds.

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## Section 11 - Toxicological Information

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### Acute Toxicity

<b>Component</b>	<b>Oral LD<sub>50</sub></b>	<b>Dermal LD<sub>50</sub></b>	<b>Inhalation LC<sub>50</sub></b>
Crosslinked polystyrene divinylbenzene (hydrogen/hydroxide form)	Not Available	Not Available	Not Available

### Chronic Toxicity – Carcinogenicity

<b>Component</b>	<b>IARC</b>
Crosslinked polystyrene divinylbenzene(hydrogen/hydroxide form)	This product is not listed by NTP, IARC or regulated as a carcinogen by OSHA.

<b>Skin Corrosion/Irritation</b>	Mild irritant.
<b>Ingestion</b>	None reported, not a likely route of entry.
<b>Inhalation</b>	Non-Irritant
<b>Serious Eye Damage/Irritation</b>	Mildly irritating to eyes.
<b>Respiratory or Skin Sensitization</b>	Not Available
<b>Germ Cell Mutagenicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>STOT-Single Exposure</b>	Not Available
<b>STOT-Repeated Exposure</b>	Not Available
<b>Aspiration Hazard</b>	Not Available
<b>Synergistic Materials</b>	Not Available

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## Section 12 – Ecological Information

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### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Crosslinked polystyrene divinylbenzene (hydrogen/hydroxide form)	Not Available	Not Available	Not Available
<b>Biodegradability</b>	Not Available		
<b>Bioaccumulation</b>	Not Available		
<b>Mobility</b>	Not Available		
<b>Other Adverse Effects</b>	Spilled product in sewage systems can cause pH change of receiving waters.		

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## Section 13 – Disposal Considerations

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**Waste From Residues/Unused Products** Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

**Contaminated Packaging** Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 14 – Transport Information

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**UN Number** Not Regulated

**UN Proper Shipping Name** Not Regulated

**Transport Hazard Class(es)** Not Regulated

**Packaging Group** Not Regulated

**Environmental Hazards** Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.

**Special Precautions** Not Available

**Transport in Bulk** Not Available

### TDG

**Other** Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

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## Section 15 – Regulatory Information

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**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

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## Section 16 – Other Information

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**Preparation Date** 2017 October 31

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no

guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

**Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution<sup>®</sup> initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

**References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

**ClearTech Industries Inc. - Locations**

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