Section 1: Identification

1a Product Names  
ResinTech SIR-500 SIR-500-pH adj,

1b Common Name  
Sodium form weak acid cation chelating resin

1c Intended use  
Removal of heavy metals and other divalent cations from water.

1d Manufacturer  
ResinTech, Inc.  
1801 Federal Street  
Camden, NJ 08105 USA

Phone  
856-768-9600

Email  
ixresin@resintech.com

Section 2: Hazard Identification

2a OSHA Hazard classification  
Not hazardous or dangerous

<table>
<thead>
<tr>
<th>Product Hazard Rating</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health = 1</td>
<td>0 = Negligible</td>
</tr>
<tr>
<td>Fire = 1</td>
<td>1 = Slight</td>
</tr>
<tr>
<td>Reactivity = 0</td>
<td>2 = Moderate</td>
</tr>
<tr>
<td>Special – N/A</td>
<td>3 = High</td>
</tr>
<tr>
<td></td>
<td>4 = Extreme</td>
</tr>
</tbody>
</table>

2b Product description  
White to tan colored solid beads with little or no odor.

2c Precautions for use  
Safety glasses and gloves recommended. Slipping hazard if spilled.

2d Environmental effects  
This product may alter the pH of any water that contacts it.

2e Potential health effects  
Will cause eye irritation. May cause mild skin irritation. Ingestion is not likely to pose a health risk.
Warning (contains sodium form Weak Acid Cation exchange resin)

H319: Causes serious eye irritation (Category 2A)
H315 Causes skin irritation (Category 2)

Precautionary Statements

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P333+313: If skin irritation or a rash occurs: Get medical advice/attention.
P337+313: If eye irritation persists get medical advice/attention.
P403+233: Store in a well ventilated place. Keep container tightly closed.
P411: Store at temperatures not exceeding 50 °C/ 122 °F.

Please refer to the safety data sheet for additional information regarding this product

ResinTech, Inc.
1801 Federal Street
Camden, NJ 08105 USA
856 768-9600
Ixresin@resintech.com
Section 3: Composition/Information on Ingredients

3a Chemical name
Polystyrene amino phosphonic acid acid in the sodium form

3b Ingredients
Polystyrene amino phosphonic acid in the sodium form
CAS# 125935-42-4 (40-65%)

Water
CAS# 7732-18-5 (40-65%)

Section 4: First Aid Measures

4a Inhalation
No adverse effects expected - normal use of product does not produce odors or vapors.

4b Skin
Wash with soap and water- seek medical attention if a rash develops.

4c Eye contact
Wash immediately with water- seek attention if discomfort continues.

4d Ingestion
No adverse effects expected for small amounts, larger amounts can cause stomach irritation. Seek medical attention if discomfort occurs.

Section 5: Fire Fighting Measures

5a Flammability
NFPA Fire rating = 1

5b Extinguishing media
Water, CO2, foam, dry powder

5c Fire fighting Procedures
Follow general fire fighting procedures indicated in the work place.

5d Protective Equipment
MSHA/NIOSH approved self-contained breathing gear, full protective clothing.

5e Combustion Products
Carbon oxides and other toxic gasses and vapors.

5f Unusual Hazards
Product is not combustible until moisture is removed. Resin begins to burn at approximately 230º C. Auto ignition can occur above 500º C.
### Section 6: Accidental Release Measures

**6a Personal Precautions**
Keep people away, spilled resin can be a slipping hazard, wear gloves and safety glasses to minimize skin or eye contact.

**6b Incompatible Chemicals**
Strong oxidants can create risk of combustion products similar to burning, exposure to strong acids can cause a rapid temperature increase.

**6c Environmental Precautions**
Keep out of public sewers and waterways.

**6d Containment Materials**
Use plastic or paper containers, unlined metal containers not recommended.

**6e Methods of Clean-up**
Sweep up material and transfer to containers.

### Section 7: Handling and Storage

**7a Handling**
Avoid prolonged skin contact. Avoid contact with salts or with salty water to prevent premature exhaustion of the resin. Keep resin moist and avoid allowing resin to completely dry.

**7b Storage**
Store in a cool dry place (0º to 45º C) in the original shipping container. This product is thermally sensitive and will have reduced shelf life if subjected to extended periods of time at temperatures exceeding 50º C. Although freezing does not usually damage ion exchange resins, avoid repeated freeze thaw cycles.

### Section 8: Exposure Controls/Personal Protection

**8a OSHA exposure limits**
None noted.

**8b Engineering Controls**
Provide adequate ventilation.

**8c Personal Protection Measures**

- **Eye Protection**
  Safety glasses or goggles.

- **Respiratory Protection**
  Not required for normal use.

- **Protective Gloves**
  Recommended for extended contact.
### Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White or cream colored beads approx. 0.6 mm diameter.</td>
</tr>
<tr>
<td>Flammability or explosive limits</td>
<td>Flammable above 500º C</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Basic when mixed with water</td>
</tr>
<tr>
<td>Relative density</td>
<td>Approx 800 grams/Liter</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Does not melt, freezes at approx. 0 C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water and most solvents</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Does not boil</td>
</tr>
<tr>
<td>Flash point</td>
<td>Approx 500º C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Does not evaporate</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Approx 500º C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Above 230º C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### Section 10: Stability and Reactivity

10a Stability: Stable under normal conditions.

10b Conditions to Avoid: Heat, exposure to strong oxidants.

10c Hazardous by-products: Charred polystyrene, aromatic acids and hydrocarbons, organic amines, nitrogen oxides, carbon oxides.

10d Incompatible materials: Strong oxidizing agents (such as HNO₃).

10e Hazardous Polymerization: Does not occur
Section 11: Toxicological Information

11a Likely Routes of Exposure  Oral, skin or eye contact.

11b Effects of exposure
   Delayed  None known.
   Immediate (acute)  Rash or burn caused by causticity.
   Chronic  None known.

11c Toxicity Measures
   Skin Adsorption  Unlikely.
   Ingestion  Oral toxicity believed to be low but no LD50 has been established.
   Inhalation  Unknown, vapors are very unlikely due to physical properties (insoluble solid).

11d Toxicity Symptoms
   Skin Adsorption  Rash or burn.
   Ingestion  Indigestion or general malaise.
   Inhalation  Unknown.

11e Carcinogenicity  None known

Section 12: Ecological information

12a Eco toxicity  Not harmful to plant or animal life.

12b Mobility  Insoluble, causticity may escape if wet.

12c Biodegradability  Not biodegradable.

12d Bioaccumulation  Insignificant.

12e Other adverse effects  Not Harmful to the environment.
### Section 13: Disposal Considerations

<table>
<thead>
<tr>
<th>13a General considerations</th>
<th>Material is non-hazardous.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13b Disposal Containers</td>
<td>Most plastic and paper containers are suitable. Avoid use of unlined metal containers.</td>
</tr>
<tr>
<td>13c Disposal methods</td>
<td>No specific method necessary.</td>
</tr>
<tr>
<td>13d Sewage Disposal</td>
<td>Not recommended.</td>
</tr>
<tr>
<td>13e Precautions for incineration</td>
<td>May release acids and toxic vapors when burned.</td>
</tr>
<tr>
<td>13f Precautions for landfills</td>
<td>pH of spent resin may be high. Resins used to remove hazardous materials may then become hazardous mixtures.</td>
</tr>
</tbody>
</table>

### Section 14: Transportation Information

<table>
<thead>
<tr>
<th>14a Transportation Class</th>
<th>Not classified as a dangerous good for transport by land, sea, or air.</th>
</tr>
</thead>
<tbody>
<tr>
<td>14b TDG</td>
<td>Not regulated.</td>
</tr>
<tr>
<td>14c IATA</td>
<td>Not regulated.</td>
</tr>
</tbody>
</table>

### Section 15: Regulatory Information

<table>
<thead>
<tr>
<th>15a CERCLA</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>15b SARA Title III</td>
<td>Not regulated</td>
</tr>
<tr>
<td>15c Clean Air act</td>
<td>Not regulated</td>
</tr>
<tr>
<td>15d Clean Water Act</td>
<td>Not regulated</td>
</tr>
<tr>
<td>15e TSCA</td>
<td>Not regulated</td>
</tr>
<tr>
<td>15f Canadian Regulations</td>
<td>Not a controlled product</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Not regulated</td>
</tr>
<tr>
<td>TDG</td>
<td></td>
</tr>
<tr>
<td>15g Mexican Regulations</td>
<td>Not Dangerous</td>
</tr>
</tbody>
</table>
The information provided in this safety data sheet is presented in good faith and believed to be accurate as of the effective data shown above. However, no warranty or guarantee of accuracy, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer’s responsibility to ensure that their activities comply with federal, state, and local laws.

16a  Date of Revision  10 January 2020