Safety Data Sheet
Product Names: PXM10, PXM20, PXM40
(Mixture of Hydroxide form Type 1 Anion and Hydrogen form Cation resin)
Effective Date 06 September 2016

Section 1: Identification

1a Product Names
ResinTech PowerMax PXM10, PXM20, PXM40

1b Common Name
Mixed Bed ion exchange resin

1c Intended use
All applications where deionized water is needed.

1d Manufacturer
ResinTech, Inc.
Address
160 Cooper Road,
West Berlin, NJ 08091 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
Amber, tan, dark brown, or black cation beads blended with white, yellow, orange, or red anion beads, all approx. 0.6 mm diameter.

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

2c Potential health effects
Will cause eye irritation. May cause mild skin irritation. Ingestion is not likely to pose a health risk.

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

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

Precautionary Statements
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection
P284: In case of inadequate ventilation wear respiratory 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.
160 Cooper Road
West Berlin, NJ 08091-9234
856 768-9600
Ixresin@resintech.com
Section 3: Composition/ Information on Ingredients

3a Chemical name
Mixture of polystyrene sulfonate in the hydrogen form and trimethylamine functionalized chloromethylated copolymer of polystyrene in the hydroxide form.

3b Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polystyrene sulfonate in the hydrogen form</td>
<td>69011-20-7</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>Trimethylamine functionalized chloromethylated copolymer of polystyrene in the hydroxide form</td>
<td>69011-18-3</td>
<td>20 - 50%</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>40 – 70%</td>
</tr>
</tbody>
</table>

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. Seek medical attention if discomfort continues.

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 230° C. Auto ignition can occur above 500° 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 bases 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 (0° to 45° 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 45° C. Although freezing does not usually damage ion exchange resins, avoid repeated freeze thaw cycles.

7c TSCA considerations

Ion exchange resins should be listed on the TSCA Inventory in compliance with State and Federal Regulations.
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
Not required for limited exposure but recommended for extended contact.

Section 9: Physical and Chemical Properties

Appearance
Solid beads approx 0.6 mm diameter

Flammability or explosive limits
Flammable above 500º C

Odor
None

Physical State
Solid

Vapor pressure
Not available

Odor threshold
Not available

Vapor density
Not available

pH
Acidic or basic when mixed with water

Relative density
Approx 700 grams/Liter

Melting point/freezing point
Does not melt, freezes at approx. 0 C

Solubility
Insoluble in water and most solvents

Boiling point
Does not boil

Flash point
Approx 500º C

Evaporation rate
Does not evaporate

Partition Coefficient (n-octanol/water)
Not applicable

Auto-ignition temperature
Approx 500º C

Decomposition temperature
Above 230º C

Viscosity
Not applicable
### Section 10: Stability and Reactivity

| 10a Stability | Stable under normal conditions. |
| 10b Conditions to Avoid | Heat, exposure to strong oxidants. |
| 10c Hazardous by-products | Organic sulfonates, amines, charred polystyrene, aromatic acids and hydrocarbons, organic amines, nitrogen oxides, carbon oxides, chlorinated hydrocarbons. |
| 10d Incompatible materials | Strong oxidizing agents (such as HNO₃), strong bases (such as NaOH), strong acids (such as HCl and H₂SO₄) |
| 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 acidity or 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

<table>
<thead>
<tr>
<th>12a Eco toxicity</th>
<th>Not harmful to plant or animal life.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12b Mobility</td>
<td>Insoluble, acidity or causticity may escape if wet.</td>
</tr>
<tr>
<td>12c Biodegradability</td>
<td>Not biodegradable.</td>
</tr>
<tr>
<td>12d Bioaccumulation</td>
<td>Insignificant.</td>
</tr>
<tr>
<td>12e Other adverse effects</td>
<td>Not Harmful to the environment.</td>
</tr>
</tbody>
</table>

### 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 or low. 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>
</tbody>
</table>
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features. 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 06 September 2016