Safety Data Sheet
Product Name: ASM-125
(Strong Base Anion Exchange Resin in the chloride form impregnated with hydrated iron oxide)
Effective date 31 March 2015

Section 1: Identification

1a Product Name ResinTech ASM-125
1b Common Name Strong base anion resin in the chloride form impregnated with hydrated iron oxide.
1c Intended use Antimony and silica removal.
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 = 0</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 Black or red colored solid beads approximately 0.6 mm diameter with little or no odor.

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
(contains ion exchange resin)
H320: Causes eye irritation (Category 2B)

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.
160 Cooper Road
West Berlin, NJ 08091-9234
856 768-9600
lxresin@resintech.com
Section 3: Composition/Information on Ingredients

3a Chemical name
Trimethylamine functionalized chloromethylated copolymer of polystyrene in the chloride form impregnated with hydrated iron oxide.

3b Ingredients
Trimethylamine functionalized Chloromethylated copolymer of Styrene and divinylbenzene in the Chloride form
CAS# 60177-39-1 (35 - 50%)

3c Ferric Hydroxide
CAS# 20344-49-4 (10 – 20%)

Water
CAS# 7732-18-5 (30 – 45%)

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.
### 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. |
| 6c | Environmental Precautions | Keep out of public sewers and waterways. |
| 6d | Containment Materials | Use plastic or paper containers. |
| 6e | Methods of Clean-up | Sweep up material and transfer to containers. |

### Section 7: Handling and Storage

| 7a | Handling | Avoid prolonged skin contact. 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 50° 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 | Safety glasses or goggles. |
| | Eye Protection | Not required for normal use. |
| | Respiratory Protection | Recommended for extended contact. |
| | Protective Gloves | |
### Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black or red 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>Little or no odor</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>Near neutral (6 to 8 typical)</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      | Trimethylamine, charred polystyrene, aromatic acids and hydrocarbons, organic amines, nitrogen oxides, carbon oxides, chlorinated hydrocarbons. |
| 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

<table>
<thead>
<tr>
<th>Delayed</th>
<th>Immediate (acute)</th>
<th>Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

11c Toxicity Measures

<table>
<thead>
<tr>
<th>Skin Adsorption</th>
<th>Ingestion</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely.</td>
<td>Oral toxicity believed to be low but no LD50 has been established.</td>
<td>Unknown, vapors are very unlikely due to physical properties (insoluble solid).</td>
</tr>
</tbody>
</table>

11d Toxicity Symptoms

<table>
<thead>
<tr>
<th>Skin Adsorption</th>
<th>Ingestion</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild rash.</td>
<td>Indigestion or general malaise.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

11e Carcinogenicity

None known

### Section 12: Ecological Information

12a Eco toxicity

Not acutely harmful to plant or animal life.

12b Mobility

Insoluble.

12c Biodegradability

Not biodegradable.

12d Bioaccumulation

Insignificant.

12e Other adverse effects

Not Harmful to the environment.

### Section 13: Disposal Considerations

13a General considerations

Material is non-hazardous.

13b Disposal Containers

Most plastic and paper containers are suitable.

13c Disposal methods

No specific method necessary.

13d Sewage Disposal

Not recommended.

13e Precautions for incineration

May release trimethylamine and toxic vapors when burned.
### Section 14: Transportation Information

14a Transportation Class  
Not classified as a dangerous good for transport by land, sea, or air.

14b TDG  
Not regulated.

14c IATA  
Not regulated.

14d DOT (49 CFR 172.101)  
Not Regulated.

### Section 15: Regulatory Information

15a CERCLA  
Not regulated

15b SARA Title III  
Not regulated

15c Clean Air act  
Not regulated

15d Clean Water Act  
Not regulated

15e TSCA  
Not regulated

15f Canadian Regulations
   - WHMIS  
   Not a controlled product
   - TDG  
   Not regulated

15g Mexican Regulations  
Not Dangerous

### Section 16: Other Information

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  
31 March 2015