Safety Data Sheet
Product Name: ASM-125-OH
(Base Anion Exchange Resin Hydroxide Form impregnated with hydrated iron oxide)
Effective date 31 March 2015

Section 1: Identification

1a Product Name: ResinTech ASM-125-OH
1b Common Name: Type I Strong base anion resin in the hydroxide form impregnated with hydrated iron oxide.
1c Intended use: Antimony and silica removal.
1d Manufacturer and Address:
   ResinTech, Inc.
   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>
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</table>

2b Product description: Black or red colored solid beads approximately 0.6 mm diameter with moderate to strong amine odor.

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

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

2d Environmental effects: This product may raise the pH of any water that contacts it.
WARNING
(contains hydroxide form strong base anion resin)

H315: Causes skin irritation (Category 2)
H318: Causes serious eye irritation (Category 2A)
H335: May cause respiratory irritation (Category 3)

Precautionary Statements
P261: Avoid breathing dust/fume/gas/mist/vapors/spray
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
lxresin@resintech.com
Section 3: Composition/Information on Ingredients

3a Chemical name  
Trimethylamine functionalized chloromethylated copolymer of polystyrene in the hydroxide 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%)  
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.
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<td>6b  Incompatible Chemicals</td>
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<tr>
<td>6c  Environmental Precautions</td>
</tr>
<tr>
<td>6d  Containment Materials</td>
</tr>
<tr>
<td>6e  Methods of Clean-up</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Section 7: Handling and Storage</th>
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<tbody>
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</tr>
<tr>
<td>7b  Storage</td>
</tr>
<tr>
<td>7c  TSCA considerations</td>
</tr>
</tbody>
</table>

<table>
<thead>
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</thead>
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</tr>
<tr>
<td>8b  Engineering Controls</td>
</tr>
<tr>
<td>8c  Personal Protection Measures</td>
</tr>
</tbody>
</table>
Respiratory Protection | Not required for normal use but recommended for poorly ventilated spaces.
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>Amber, yellow, 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>Basic when mixed with water</td>
</tr>
<tr>
<td>Relative density</td>
<td>Approx 710 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

<table>
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<tr>
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<tr>
<td>10a Stability</td>
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<td>10b Conditions to Avoid</td>
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<tr>
<td>10c Hazardous by-products</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>10d Incompatible materials</td>
</tr>
</tbody>
</table>
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): None known.
- Chronic: None known.

11c Toxicity Measures

- Skin Adsorption: Unlikely, some transfer of causticity is possible.
- Ingestion: Oral toxicity believed to be low but no LD50 has been established.
- Inhalation: Amine vapors released in head space above sealed containers can exceed recommended exposure levels for trimethylamine.

11d Toxicity Symptoms

- Skin Adsorption: Mild rash.
- Ingestion: Indigestion or general malaise.
- Inhalation: Unknown.

11e Carcinogenicity

None known.

11f 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. Avoid use of unlined metal containers.

13c Disposal methods
No specific method necessary.

13d Sewage Disposal
Not recommended.

13e Precautions for incineration
May release trimethylamine and toxic vapors when burned.

13f Precautions for landfills
pH of spent resin may be high. Resins used to remove hazardous materials may then become hazardous mixtures.

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