1. **Product And Company Identification**

**Product Name:** AS-2820  
**Synonyms/Use:** Coagulant Aid  
**Manufacturer/Supplier:**  
Applied Specialties, Inc.  
33555 Pin Oak Parkway  
Avon Lake, OH 44012  
Customer Information Number: 440-933-9442

For Chemical Emergency Spills, Leaks, Fire, Exposure or Accident: call Chemtrec 800-424-9300 Day or Night

2. **Hazardous Identification**

**Signal Word:** Danger

**Pictograms:**

<table>
<thead>
<tr>
<th>Hazard Statement(s):</th>
<th>Causes severe skin burns and eye damage. Harmful if swallowed. Harmful if inhaled. Harmful in contact with skin.</th>
</tr>
</thead>
</table>

**Precautionary Statement(s):**

**Prevention**  
Do not breathe dust or vapors (Aspiration hazard if inhaled or swallowed)  
Avoid breathing mist or vapors.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only in a well-ventilated area.  
Wear protective gloves and eye/face protection.  

Carcinogenicity: None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.  
Reproductive toxicity: No reproductive effects reported  
Teratogenicity: No teratogenic effects reported  
Genotoxicity: No mutagenic effects reported

**Precautionary Statements for response, storage, and disposal**

Specific treatment (see first aid section of label).  
Take off contaminated clothing and wash before reuse.  
Wash contaminated clothing before reuse.  
Store locked up.  
Dispose of contents/container in compliance with local, state, and federal regulations.  

Certified to a Maximum Use for Potable Water of 200 mg/L
3. **Chemical Composition**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Wt%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron (III) chloride</td>
<td>7705-08-0</td>
<td>34 – 44</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>7647-01-0</td>
<td>0.5 – 2.0</td>
</tr>
<tr>
<td>1,2-ethanediamine, polymer with (chloromethyl) oxirane and N-methylmethanamine</td>
<td>42751-79-1</td>
<td>3.5 – 4.5</td>
</tr>
</tbody>
</table>

Chemical identity of some ingredients may be withheld as confidential as permitted by 29 CFR 1910.1200 and various State right to know laws.

4. **First Aid Measures**

**General Advice:** Remove contaminated clothing immediately.

**Eye Contact:** Immediately flush eyes with large amounts of running water for at least 15 minutes, lifting the lower and upper lids. Consult an ophthalmologist immediately.

**Skin Contact:** Wash thoroughly with soap and water to remove any chemical from skin. Get medical attention. Contaminated clothing should be removed and laundered.

**Inhalation:** If difficulties occur after product has been inhaled, remove to fresh air and get medical attention. If breathing has stopped start artificial respirations and call 911.

**Ingestion:** Immediately rinse mouth. Get medical attention immediately. **Do not induce vomiting.** Never give anything by mouth to an unconscious person or if person is having convulsions. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration.

5. **Fire Fighting Measures**

**Flash Point and Method:** Not combustible or flammable.

**Extinguishing Media**
Use water fog or spray, dry chemical, foam, or carbon dioxide. If water is used, restrict pedestrian and vehicular traffic in areas where a slip hazard may exist.

**General Hazard**
Restrict pedestrian and vehicular traffic. Keep upwind. Avoid bodily contact with the material. Containers can build pressure if exposed to heat. Cool containers using water.

**Fire Fighting Equipment**
Wear NIOSH/MSHA approved, pressure-demand self-contained breathing apparatus and full protective gear. The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed in accordance with all federal, state and local regulations.

6. **Accidental Release Measures**

Restrict access until clean-up operations are complete. Wear appropriate Personal Protective Equipment and stay upwind. Note that spills pose a slip hazard.

1. Dike around the spill area to prevent spreading.
2. For small spills: Dilute with water and neutralize with lime or similar base to a solid consistency.
3. For large spills: Remove spill using a vacuum truck, Dilute residue with water and neutralize with lime or similar base to a solid consistency.
4. Vacuum or sweep spilled material into approved container.
5. Dispose of all material in accordance with to all FEDERAL, STATE AND LOCAL REGULATIONS.
   NOTE: DO NOT wash or pour into any surface waters/ground waters or streams or directly into sewers.

7. Handling and Storage

   Handling
   Avoid inhalation of vapors. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Practice good industrial hygiene. Wash after handling and before eating, drinking, or smoking.

   Storage
   Keep container tightly closed in a cool, dry and well-ventilated place. Do not store in metal – Containers and feed equipment should be constructed out of appropriate material such as polyethylene, polypropylene, PVC, rubber-lined steel, fiberglass reinforced polyester (FRP), or titanium. Store in a secured place.

   Temperature Tolerance – Avoid extremes.

8. Exposure Controls/Personal Protection

   Occupational Exposure Limits
   Iron (III) chloride 1 mg/m$^3$ OSHA PEL
   Hydrogen chloride 7 mg/m$^3$ OSHA PEL

   Exposure Guidelines
   Work in well ventilated areas. Do not breathe vapor or mist. Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice.

   Engineering Controls
   Use process enclosures, local exhaust ventilation, or other engineering controls to reduce airborne levels below established guidelines. Use local exhaust ventilation in areas where these levels may be exceeded.

   Personal Protection
   Respirator: Wear a NIOSH/MSHA approved or equivalent vapor/particulate respirator as necessary.
   Eye Protection: Tight fitting safety goggles and face shield
   Gloves: Chemical resistant gloves and check with glove manufacturers’ recommendations, consider all work functions when selecting the best glove
   Clothing: Impermeable protective clothing as necessary to minimize contact.
   Other: Eye wash and safety showers should be in immediate work area; practice good industrial hygiene and safety practices. Refer to Section 3 for exposure limits.

9. Physical And Chemical Properties

   Appearance Dark red to brown liquid
   Odor Sharp
   Boiling Point ~ 100°C
   Freezing Point < -40°C
   Flash Point Not applicable
   Specific Gravity 1.32 – 1.38 g/mL
   Product pH < 1.0
   Solubility In Water 100%

10. Stability And Reactivity

   Stability The product is stable under normal temperatures and pressures.
   Hazardous Reactions No hazardous reactions when stored and handled according to instructions.
11. Toxicological Information

**Acute Toxicity for Iron (III) chloride**

<table>
<thead>
<tr>
<th>Material</th>
<th>LD₅₀ (mg/kg)</th>
<th>Eye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Rat</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Irritation/Corrosion Skin</td>
<td>irritant</td>
<td></td>
</tr>
<tr>
<td>Eye</td>
<td>Severe irritant</td>
<td></td>
</tr>
</tbody>
</table>

**Chronic Toxicity**
- No data available

**Sensitization**
- Not expected

**Carcinogenicity**
- This product does not contain any carcinogens or potential carcinogens as listed by IARC, NTP, ACGIH, or OSHA.

**Mutagenicity**
- No data available

**Reproductive Toxicity**
- No data available

**Cytotoxicity**
- No data available

**Target organs**
- n/a

12. Ecological Information

**Aquatic toxicity for Iron (III) chloride**

<table>
<thead>
<tr>
<th>Toxicity to Fish</th>
<th>LC₅₀ (96 hr)</th>
<th>Bluegill sunfish 59 mg/L</th>
</tr>
</thead>
</table>

**Toxicity Aquatic Invertebrates**

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>EC₅₀ (48 hr)</th>
<th>Daphnia magna 27 mg/L</th>
</tr>
</thead>
</table>

**Bioaccumulation**
- Accumulation in organisms is not to be expected.

**Biodegradation**
- Not applicable

13. Disposal Considerations

**Product Residues**
- Disposal – Dispose in accordance with all federal, state, and local regulations. It is the waste generator’s responsibility to determine if a particular waste is hazardous under RCRA.

**Used Packaging**
- Dispose of in a licensed facility and in compliance with local, state, and federal regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Corrosive liquid, acidic, inorganic, n.o.s. (Ferric chloride)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>8</td>
</tr>
<tr>
<td>Identification Number</td>
<td>UN 3264</td>
</tr>
<tr>
<td>Packaging Group</td>
<td>II</td>
</tr>
<tr>
<td>Label Required</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>
15. Regulatory Information

Federal Regulations

CERCLA/SUPERFUND (40 CFR 117, Section 302)
Component | CAS Number | Reportable Quantity
---|---|---
Iron (III) chloride | 7705-08-0 | 2,270 lbs

SARA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355)
Component | CAS Number
---|---
None listed

SARA HAZARD CATEGORIES (40 CFR 370, Sections 311, 312)
[X] Acute [ ] Chronic [ ] Fire [ ] Pressure [ ] Reactive [ ] None

SARA TOXIC SUBSTANCES (40 CFR 372, Section 313)
This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the emergency planning and Right – to – know Act of 1986 and of 40CFR 372.
Component | CAS Number
---|---
None listed

US TOXIC SUBSTANCES CONTROL ACT/INVENTORY STATUS (TSCA)
All components are listed

RCRA STATUS
It is the waste generator’s responsibility to determine if a particular waste is hazardous under RCRA

NTP, IARC, OSHA, & ACGIH STATUS
None of the components in this product at concentrations greater than 0.1% are listed

DOT REPORTABLE QUANTITY (RQ) (49 CFR, Subchapter C, Section 172.101, Appendix A)
Component | CAS Number | Concentration | RQ
---|---|---|---
Iron (III) chloride | 7705-08-0 | 34 – 44 | 2,270 lbs

State Regulations

PENNSYLVANIA, NEW JERSEY, and MASSACHUSETTS RIGHT-TO-KNOW INFORMATION:
Component | CAS Number
---|---
Iron (III) chloride | 7705-08-0
Hydrogen chloride | 7647-01-0

CALIFORNIA PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE HARM.

Other Information
This information is given without any warranty or representation and is presented in good faith and believed to be accurate. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation and verification. Before using any product, read its label carefully and completely.

Revision 11/ Supersedes 6/28/2013 / mtl
Revisions: format, all sections