Material Safety Data Sheet
Ammonium Chloride, 5% MSDS

Section 1: Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ammonium Chloride, 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Codes</td>
<td>SLA4564</td>
</tr>
<tr>
<td>CAS#</td>
<td>Mixture.</td>
</tr>
<tr>
<td>RTECS</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>TSCA</td>
<td>TSCA 8(b) inventory: Ammonium chloride; Water</td>
</tr>
<tr>
<td>CI#</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Synonym</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Contact Information:
Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396
US Sales: 1-800-901-7247
International Sales: 1-281-441-4400
Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300
International CHEMTREC, call: 1-703-527-3887
For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>12125-02-9</td>
<td>5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>95</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Ammonium chloride: ORAL (LD50): Acute: 1650 mg/kg [Rat.]

Section 3: Hazards Identification

Potential Acute Health Effects:
Slightly hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant), of inhalation. Non-corrosive for skin. Non-permeator by skin.

Potential Chronic Health Effects:

Section 4: First Aid Measures
Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
Fire Hazards in Presence of Various Substances: Not applicable.
Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions: Not applicable.
Special Remarks on Fire Hazards: Not available.
Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Do not ingest. Do not breathe gas/fumes/vapor/spray. If ingested, seek medical advice immediately and show the container or the label.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

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**Section 8: Exposure Controls/Personal Protection**

**Engineering Controls:**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

**Personal Protection:** Safety glasses. Lab coat.

**Personal Protection in Case of a Large Spill:**
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**
Ammonium chloride STEL: 20 (mg/m3) from ACGIH (TLV) [United States] [1995] TWA: 10 (mg/m3) from ACGIH (TLV) [United States] TWA: 10 from OSHA (PEL) [United States]Consult local authorities for acceptable exposure limits.

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**Section 9: Physical and Chemical Properties**

**Physical state and appearance:** Liquid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** Not applicable.

**Color:** Clear Colorless.

**pH (1% soln/water):** Neutral.

**Boiling Point:** The lowest known value is 100°C (212°F) (Water).

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Weighted average: 1.02 (Water = 1)

**Vapor Pressure:** The highest known value is 2.3 kPa (@ 20ºC) (Water).

**Vapor Density:** The highest known value is 0.62 (Air = 1) (Water).

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** The product is much more soluble in water.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:**
Easily soluble in cold water, hot water. Very slightly soluble in methanol. Insoluble in diethyl ether, n-octanol.

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**Section 10: Stability and Reactivity Data**

**Stability:** The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Slightly reactive to reactive with alkalis.
Corrosivity:
Slightly corrosive in presence of steel. Non-corrosive in presence of glass.
Special Remarks on Reactivity: Incompatible with lead and silver salts. (Ammonium chloride)
Special Remarks on Corrosivity: Not available.
Polymerization: Yes.

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Section 11: Toxicological Information

Routes of Entry: Not available.
Toxicity to Animals: Acute oral toxicity (LD50): 33000 mg/kg (Rat.) (Calculated value for the mixture).
Chronic Effects on Humans: Not available.
Other Toxic Effects on Humans:
Slightly hazardous in case of skin contact (irritant, sensitizer), of inhalation. Non-permeator by skin.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Material is irritating to mucous membranes and upper respiratory tract. (Ammonium chloride)

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Section 12: Ecological Information

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.
Special Remarks on the Products of Biodegradation: Not available.

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Section 13: Disposal Considerations

Waste Disposal:

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Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).
Identification: Not applicable.
Special Provisions for Transport: Not applicable.

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Section 15: Other Regulatory Information
**Federal and State Regulations:**
Pennsylvania RTK: Ammonium chloride Massachusetts RTK: Ammonium chloride TSCA 8(b) inventory: Ammonium chloride; Water CERCLA: Hazardous substances.: Ammonium chloride;

**Other Regulations:** Not available. or of its ingredients

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**
This product is not classified according to the EU regulations.

**HMIS (U.S.A.):**
- Health Hazard: 1
- Fire Hazard: 0
- Reactivity: 0
- Personal Protection: a

**National Fire Protection Association (U.S.A.):**
- Health: 1
- Flammability: 0
- Reactivity: 0
- Specific hazard:

**Protective Equipment:**
Not applicable. Lab coat. Not applicable. Safety glasses.

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**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2005 12:48 AM

**Last Updated:** 05/21/2013 12:00 PM

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