Material Safety Data Sheet
Ammonium Thiocyanate, ACS

Section 1 - Chemical Product and Company Identification

**MSDS Name:**
Ammonium Thiocyanate, ACS

**Catalog Numbers:**
LC11340

**Synonyms:**
Thiocyanic acid, ammonium salt; Ammonium rhodanate; Ammonium sulfocyanate; Ammonium sulfocyanide; Ammonium thiocyanate; Ammonium rhodanide.

**Company Identification:**
LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

**Company Phone Number:**
(412) 826-5230

**Emergency Phone Number:**
(800) 424-9300

**CHEMTREC Phone Number:**
(800) 424-9300

Section 2 – Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1762-95-4</td>
<td>Ammonium thiocyanate</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**Emergency Overview**

**Appearance:** White crystalline powder.

**Caution.** Causes respiratory tract irritation. Causes eye and skin irritation. Contact with acids liberates toxic gas. May be harmful if swallowed, inhaled, or absorbed through the skin. Hygroscopic (absorbs moisture from the air).

**Target Organs:** Respiratory system, eyes, thyroid, skin

**Potential Health Effects**

**Eye:**
May cause moderate eye irritation.

**Skin:**
Causes skin irritation. May be harmful if absorbed through the skin.

**Ingestion:**
Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause agitation, delirium, convulsions, low blood pressure, anxiety and even unconsciousness and death.

**Inhalation:**
Causes respiratory tract irritation. May be harmful if inhaled.
Chronic:
Prolonged or repeated skin contact may cause dermatitis. Chronic exposure may cause thyroid damage: thyroid enlargement, decrease in metabolic rate, and hypothyroidism. Repeated exposure can cause headache, nausea, vomiting, loss of appetite and weight.

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:
Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:
Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:
Use water spray, dry chemical, "alcohol resistant" foam, or carbon dioxide.

Autoignition Temperature:
Not available

Flash Point:
190 °C (374 °F)

NFPA Rating:
Not available.

 Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.
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Spills/Leaks:
Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use only with adequate ventilation.

Storage:
Store in a cool, dry, well-ventilated area away from incompatible substances. Keep from contact with oxidizing materials. Protect from light.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium thiocyanate</td>
<td>none listed</td>
<td>none listed</td>
<td>5 mg/m3 TWA (listed under Cyanide anion)</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Ammonium thiocyanate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:
Wear appropriate gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Crystalline powder</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>4.5 – 6 (5% soln)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Negligible</td>
</tr>
</tbody>
</table>
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Vapor Density: Not available
Evaporation Rate: Negligible
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 149 °C
Decomposition Temperature: 190 °C
Solubility in water: Freely soluble
Specific Gravity/Density: 1.305 g/cm³
Molecular Formula: NH₄SCN
Molecular Weight: 76.12

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures. May decompose when exposed to light.

Conditions to Avoid:
Dust generation, moisture, excess light.

Incompatibilities with Other Materials:
Strong oxidizing agents, strong acids, brass, copper, iron.

Hazardous Decomposition Products:
Hydrogen cyanide, nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide, ammonia, ammonia derivatives.

Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 1762-95-4: XK7875000

LD50/LC50:
CAS# 1762-95-4:
Oral, mouse: LD₅₀ = 500 mg/kg;
Oral, mouse: LD₅₀ = 720 mg/kg;
Oral, rat: LD₅₀ = 750 mg/kg

Carcinogenicity:
CAS# 1762-95-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:
No information found

Teratogenicity:
No information found

Reproductive:
No information found

Mutagenicity:
No information found

Neurotoxicity:
No information found
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Section 12 - Ecological Information

Ecotoxicity:
No data available. Acute aquatic effect: 96-hour LC50; fathead minnow: 100 mg/L 96-hour LC50; water flea: 170 mg/L 48-hour LC50; mosquito fish: 420 mg/L

Environmental:
This chemical has a low biological oxygen demand, and it is expected to cause little oxygen depletion in aquatic systems. It has a low potential to affect aquatic organisms. It is not likely to bioconcentrate.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

US Federal
TSCA:
CAS# 1792-95-4 is listed on the TSCA inventory.
SARA Reportable Quantities (RQ):
CAS# 1762-95-4: 5000 lb. final RQ; 2270 kg final RQ
CERCLA/SARA Section 313:
No chemicals are reportable under Section 313.
OSHA - Highly Hazardous:
None of the chemicals in this product are considered highly hazardous by OSHA.

US State
State Right to Know:
CAS# 1762-95-4 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.
California Regulations:
None.

European/International Regulations
Canadian DSL/NDSL:
CAS# 1762-95-4 is listed on Canada's DSL List.
Canada Ingredient Disclosure List:
CAS# 1762-95-4 (listed as Cyanides, inorganic salts) is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: October 8, 2007
Revision Date: None

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