

## **MATERIAL SAFETY DATA SHEET**

### **AMMONIUM THIOCYANATE (Extra Pure) MSDS CAS: 1762-95-4**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** AMMONIUM THIOCYANATE

**CAS#:** 1762-95-4

**C.I. No.:** Not available.

**Synonym:**

**Chemical Name:** Ammonium thiocyanate

**Chemical Formula:** NH<sub>4</sub>SCN

**Brand:** OXFORD

##### **Details Of The Supplier Of The Safety Data Sheet:**

**Company identification:** OXFORD LAB FINE CHEM LLP  
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#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

Name	CAS #	% by Weight
Ammonium thiocyanate	1762-95-4	100

**Toxicological Data on Ingredients:** Ammonium thiocyanate: ORAL (LD50): Acute: 750 mg/kg [Rat].  
500 mg/kg [Mouse]. 500 mg/kg [Guinea pig].

## Section 3: Hazards Identification

**Potential Acute Health Effects:** Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:** CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, thyroid. Repeated or prolonged exposure to the substance can produce target organs damage.

## 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.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**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. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable

**Auto-Ignition Temperature:** Not applicable.

## Section 5: Fire and Explosion Data (Continued)

**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:** SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** Not applicable.

**Special Remarks on Explosion Hazards:** Ammonium Thiocyanate + Lead Nitrate may cause explosion

## Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Section 7: Handling and Storage

**Precautions:** Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

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

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

## Section 8: Exposure Controls/Personal Protection (Continued)

**Personal Protection:** Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Crystals solid.)

<b>Odor</b>	: Odorless.
<b>Taste</b>	: Not available.
<b>Molecular Weight</b>	: 76.12g/mole
<b>Color</b>	: Colorless.
<b>pH (1% soln/water)</b>	: Not available.
<b>Boiling Point</b>	: Not available.
<b>Melting Point</b>	: 149.6°C (301.3°F).
<b>Flash Point</b>	: Not available.
<b>Critical Temperature</b>	: Not available.
<b>Specific Gravity</b>	: 1.305 (Water = 1)
<b>Vapor Pressure</b>	: Not applicable
<b>Vapor Density</b>	: Not available.
<b>Volatility</b>	: Not available.
<b>Odor Threshold</b>	: Not available.
<b>Water/Oil Dist. Coeff.</b>	: Not available
<b>Ionicity (in Water)</b>	: Not available.
<b>Dispersion Properties</b>	: See solubility in water, Acetone
<b>Solubility</b>	: Easily soluble in cold water, hot water. Soluble in acetone. Soluble in ammonia, and alcohol. Practically incoluble in chloroform, and ethyl acetate.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:** Not available.

**Corrosivity:** Extremely corrosive in presence of copper, brass, iron. Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Incompatible with  $KClO_3$  and mixtures with  $Pb(NO_3)_2$

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 500 mg/kg [Guinea pig].

**Chronic Effects on Humans:** May cause damage to the following organs: blood, thyroid.

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**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:** Acute Potential Health Effects: Skin: Causes skin irritation Eyes: Causes eye irritation Inhalation: Causes respiratory tract and mucous membrane irritation. Ingestion: May cause gastrointestinal tract irritation with nausea and vomiting. May affect behavior/Central Nervous System (hallucinations, distorted perceptions, personality and mood changes, mania, disorientation, weakness, seizures), metabolism. Chronic Potential Health Effects: Prolonged exposure may affect the thyroid gland and blood cells, and cause personality and mood changes.

## 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 less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

### Land transport (ADR-RID)

**General Information:** Not Regulated

### Sea transport (IMDG) [English only]

**General Information:** Not Regulated

### Air transport (ICAO-IATA) [English only]

**General Information:** Not Regulated

## Section 15: Other Regulatory Information

**Federal and State Regulations:** Connecticut hazardous material Survey. Ammonium thiocyanate Illinois toxic substances disclosure to employee act: Ammonium thiocyanate Illinois chemical safety act: Ammonium thiocyanate New York release reporting list: Ammonium thiocyanate Pennsylvania RTK: Ammonium thiocyanate Massachusetts RTK: Ammonium thiocyanate Massachusetts spill list: Ammonium thiocyanate New Jersey: Ammonium thiocyanate New Jersey spill list: Ammonium thiocyanate Louisiana spill reporting: Ammonium thiocyanate TSCA 8(b) inventory: Ammonium thiocyanate CERCLA: Hazardous substances.: Ammonium thiocyanate: 5000 lbs. (2268 kg)

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

### **Other Classifications:**

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

**DSCL (EEC):** R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. S2- Keep out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing. S46- If swallowed, seek medical advice immediately and show this container or label.



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## Section 15: Other Regulatory Information (Continued)

**HMIS (U.S.A.):**

**Health Hazard: 2**

**Fire Hazard: 0**

**Reactivity: 0**

**Personal Protection: E**

**National Fire Protection Association (U.S.A.):**

**Health: 2**

**Flammability: 0**

**Reactivity: 0**

**Specific hazard:**

**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

### *Disclaimer:*

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