



Technical Data Sheet

1. Product Description

- (1) **Product Name:** Ammonium Thiocyanate
- (2) **CAS:** 1762-95-4
- (3) **Molecular Formula:** NH_4SCN
- (4) **Molecular Weight:** 76.12g/mol
- (5) **Properties:** Colorless monoclinic crystals in lamellar or prismatic forms, specific gravity 1.305, melting point 149.6°C. Highly soluble in water, ethanol, liquid ammonia, acetone, pyridine, and liquid sulfur dioxide. Its aqueous solution turns blood red upon contact with iron salts but remains colorless with ferrous salts. Decomposes into ammonia, carbon disulfide, and hydrogen sulfide when heated to approximately 140°C.
- (6) **Product Category:** Active Agents and Auxiliaries

2. Technical Specifications:

ITEM	Grade A	Grade B	Grade C
NH₄SCN Content (Dry Product) ≥%	99	98	97
Solution Appearance	Clear and transparent		
pH Value	4.5-6.0		
Chlorides, % ≤	0.01	0.01	0.02
Sulfates, % ≤	0.01	0.01	0.03
Residue, % ≤	0.02	0.02	0.02
Heavy Metals (Pb), % ≤	0.002	0.002	0.002
Iron (Fe), % ≤	0.0001	0.0003	0.0008
Moisture, % ≤	1.0	1.8	2.0



3. Applications:

- Manufactures synthetic raw materials for rice pesticides including Dichlorvos, Dichlorvos-D, Chlorpyrifos, Chlorpyrifos-M, Phosmet, Triazole, as well as Thiocyananamine, Thiocyanate Powder, and Dinitro Powder.
- Serves as auxiliary raw materials for hydrogen peroxide production, dyes, and polymerization catalysts in organic synthesis.
- Used as raw materials for manufacturing cyanides, ferrocyanides, and thioureas.
- Also serves as a coagulant in fabric printing for coating processes, a developing agent in steam printing, a rust inhibitor in zinc-based primers, and an adhesive for rare metals.
- Additionally employed in analytical reagents and photographic applications.

4. Handling & Storage

- **Handling:** Use with adequate ventilation. Avoid generating and inhaling dust. Wear appropriate protective equipment (gloves, safety glasses).
- **Storage:** Store in a cool, dry, well-ventilated area. Keep containers tightly closed to prevent moisture absorption.
- **Package:** Double-layer laminated woven bag with plastic inner liner, 25 kg capacity.