

# AMMONIUM THIOCYANATE

AMT

CAUTIONARY RESPONSE INFORMATION		
Common Synonyms	Solid or solution (in water)	White Odorless
<b>Stop discharge if possible. Keep people away.</b> Call fire department. Avoid contact with liquid and solid. Avoid contact with solid and dust. Isolate and remove discharged material. Notify local health and pollution control agencies. Protect water intakes.		
Fire	<b>Combustible Solid.</b> Solution not flammable. <b>POISONOUS GASES MAY BE PRODUCED IN FIRE.</b> Wear goggles and self-contained breathing apparatus. Extinguish with water.	
Exposure	<b>CALL FOR MEDICAL AID.</b>  <b>VAPOR OR DUST</b> Irritating to eyes, nose and throat. If inhaled will cause coughing or difficult breathing. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.  <b>LIQUID OR SOLID</b> Irritating to skin and eyes. If swallowed will cause nausea or vomiting. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.	
Water Pollution	<b>Dangerous to aquatic life in high concentrations.</b> May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.	

1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS
Dilute and disperse Stop discharge	2.1 CG Compatibility Group: Not listed 2.2 Formula: NH <sub>4</sub> SCN 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 1762-95-4 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51481
<b>3. HEALTH HAZARDS</b>	
3.1 Personal Protective Equipment: Rubber or plastic gloves; rubber or plastic apron; standard goggles	
3.2 Symptoms Following Exposure: Inhalation of dust causes irritation of nose and throat. Ingestion causes dizziness, cramps, nervous disturbances. Dust irritates eyes. Can be absorbed through skin; prolonged contact may produce various skin eruptions, dizziness, cramps, nausea, and mild to severe disturbance of the nervous system.	
3.3 Treatment of Exposure: INHALATION: move to fresh air. INGESTION: give large amount of water; get medical attention. EYES OR SKIN: wash with water; consult physician.	
3.4 TLV-TWA: Not listed.	
3.5 TLV-STEL: Not listed.	
3.6 TLV-Ceiling: Not listed.	
3.7 Toxicity by Ingestion: Grade 2; oral rat LD <sub>50</sub> = 854 mg/kg	
3.8 Toxicity by Inhalation: Currently not available.	
3.9 Chronic Toxicity: Currently not available	
3.10 Vapor (Gas) Irritant Characteristics: Currently not available	
3.11 Liquor or Solid Characteristics: Currently not available	
3.12 Odor Threshold: Currently not available	
3.13 IDLH Value: Not listed.	
3.14 OSHA PEL-TWA: Not listed.	
3.15 OSHA PEL-STEL: Not listed.	
3.16 OSHA PEL-Ceiling: Not listed.	
3.17 EPA AEGL: Not listed	

4. FIRE HAZARDS	7. SHIPPING INFORMATION
4.1 Flash Point: Solid may be combustible; solution is not flammable.	7.1 Grades of Purity: Reagent; Technical, 50-65% solution in water
4.2 Flammable Limits in Air: Not pertinent	7.2 Storage Temperature: Ambient
4.3 Fire Extinguishing Agents: Water	7.3 Inert Atmosphere: No requirement
4.4 Fire Extinguishing Agents Not to Be Used: Currently not available	7.4 Venting: Open
4.5 Special Hazards of Combustion Products: Decomposes to form ammonia, hydrogen sulfide, and hydrogen cyanide. Oxides of nitrogen may also form. All of these products are toxic.	7.5 IMO Pollution Category: Currently not available
4.6 Behavior in Fire: Currently not available	7.6 Ship Type: Currently not available
4.7 Auto Ignition Temperature: Not pertinent	7.7 Barge Hull Type: Currently not available
4.8 Electrical Hazards: Not pertinent	
4.9 Burning Rate: Not pertinent	
4.10 Adiabatic Flame Temperature: Currently not available	
4.11 Stoichiometric Air to Fuel Ratio: Currently not available	
4.12 Flame Temperature: Currently not available	
4.13 Combustion Molar Ratio (Reactant to Product): Currently not available	
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	
5. CHEMICAL REACTIVITY	9. PHYSICAL & CHEMICAL PROPERTIES
5.1 Reactivity with Water: No reaction	9.1 Physical State at 15°C and 1 atm: Solid or liquid
5.2 Reactivity with Common Materials: Currently not available	9.2 Molecular Weight: 76.12
5.3 Stability During Transport: Stable	9.3 Boiling Point at 1 atm: (solution; solid decomposes) 239°F = 115°C = 388°K
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent	9.4 Freezing Point: (solid) 320°F = 160°C = 433°K
5.5 Polymerization: Not pertinent	9.5 Critical Temperature: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent	9.6 Critical Pressure: Not pertinent
6. WATER POLLUTION	9.7 Specific Gravity: > 1.1 at 20°C (solid) 1.1-1.15 at 20°C (solution)
6.1 Aquatic Toxicity: 280-300 ppm/1 hr/orange-spotted sunfish/killed/fresh water 420 ppm/48 hr/mosquitofish/L/fresh water	9.8 Liquid Surface Tension: Not pertinent
6.2 Waterfowl Toxicity: Currently not available	9.9 Liquid Water Interfacial Tension: Not pertinent
6.3 Biological Oxygen Demand (BOD): < 0.010 lb/lb, 5 days	9.10 Vapor (Gas) Specific Gravity: Not pertinent
6.4 Food Chain Concentration Potential: None	9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
6.5 GESAMP Hazard Profile: Not listed	9.12 Latent Heat of Vaporization: Not pertinent
	9.13 Heat of Combustion: Not pertinent
	9.14 Heat of Decomposition: Not pertinent
	9.15 Heat of Solution: 133 Btu/lb = 74 cal/g = 3.1 X 10 <sup>5</sup> J/kg
	9.16 Heat of Polymerization: Not pertinent
	9.17 Heat of Fusion: Currently not available
	9.18 Limiting Value: Currently not available
	9.19 Reid Vapor Pressure: Currently not available

NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
34	111.200		NOT		NOT		NOT
36	114.500						
38	117.799						
40	121.000						
42	124.299		PERTINENT		PERTINENT		PERTINENT
44	127.500						
46	130.799						
48	134.000						
50	137.299						
52	140.500						
54	143.799						
56	147.099						
58	150.299						
60	153.599						
62	156.799						
64	160.099						
66	163.299						
68	166.599						
70	169.799						
72	173.099						
74	176.400						
76	179.599						
78	182.900						
80	186.099						
82	189.400						
84	192.599						