



Fisher Scientific

Part of Thermo Fisher Scientific

Material Safety Data Sheet

Creation Date 24-Nov-2010

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Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Ammonium thiocyanate

Cat No. A709; A709-3; A709-500

Synonyms Ammonium rhodanate; Thiocyanic acid; ammonium salt

Recommended Use Laboratory chemicals

Company Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Contact with acids liberates toxic gas. Harmful by inhalation, in contact with skin and if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Hygroscopic.

Appearance White

Physical State Solid

odor odorless

Target Organs Respiratory system, Skin, Eyes, Gastrointestinal tract (GI), Central nervous system (CNS)

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

May cause irritation

Skin

Harmful in contact with skin. May cause irritation.

Inhalation

Harmful by inhalation. May cause irritation of respiratory tract.

Ingestion

Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

None known

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Ammonium thiocyanate	1762-95-4	>95

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	190°C / 374°F
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. chemical foam.
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health 2** **Flammability 1** **Instability 1** **Physical hazards N/A**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Keep people away from and upwind of spill/leak.
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Environmental Precautions Should not be released into the environment

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Do not let this chemical enter the environment.

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Wear personal protective equipment. Do not breathe vapors/dust. Do not get in eyes, on skin, or on clothing. Do not ingest.

Storage Keep container tightly closed in a dry and well-ventilated place. Keep away from acids. Protect from light. Protect from moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium thiocyanate		(Vacated) TWA: 5 mg/m ³	IDLH: 25 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ammonium thiocyanate	Ceiling: 10 ppm Ceiling: 11 mg/m ³ Skin	TWA: 5 mg/m ³	

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	White
odor	odorless
Odor Threshold	No information available.
pH	5-6
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	149°C / 300.2°F
Decomposition temperature	No information available.
Flash Point	190°C / 374°F
Evaporation Rate	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity	1.300
Solubility	No information available.
log Pow	No data available
Molecular Weight	76.12
Molecular Formula	C H4 N2 S

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions. Hygroscopic.
Conditions to Avoid	Exposure to light. Incompatible products. Exposure to moist air or water.
Incompatible Materials	Acids, Peroxides
Hazardous Decomposition Products	Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO ₂), Sulfur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	Contact with acids liberates toxic gas.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium thiocyanate	500 mg/kg (Rat)	Not listed	Not listed

Irritation	No information available.
Toxicologically Synergistic Products	No information available.
<u>Chronic Toxicity</u>	
Carcinogenicity	There are no known carcinogenic chemicals in this product
Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	No information available.
Developmental Effects	No information available.

Teratogenicity No information available.

Other Adverse Effects The toxicological properties have not been fully investigated.. See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity
Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Ammonium thiocyanate	X	X	-	217-175-6	-		X	X	X	X	X

Legend:
X - Listed

- E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - Indicates a commenced PMN substance
- R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).
- Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Ammonium thiocyanate	1762-95-4	>95	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Ammonium thiocyanate	X	5000 lb	X	-

Clean Air Act

Not applicable

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ammonium thiocyanate	X		-

OSHA

Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Ammonium thiocyanate	5000 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

End of MSDS