

# Barium & Chemicals, Inc.

## Safety Data Sheet

Revision: 0

Revision Date: 8/17/2016

### 1.) Identification

Product Name: **Ammonium Thiocyanate**  
Product Number: AM1730  
Product Formula:  $\text{CH}_4\text{N}_2\text{S}$

Manufacturer: Barium & Chemicals, Inc.  
PO Box 218  
515 Kingsdale Road  
Steubenville, Ohio 43952-5218

Phone: 740-282-9776  
Fax: 740-282-9161  
Web: [www.bariumchemicals.com](http://www.bariumchemicals.com)

Emergency Phone: Chemtrec 800-424-9300  
International: 703-527-3887

### 2.) HAZARDS IDENTIFICATION

#### Emergency Overview

#### OSHA Hazards

Target Organ Effect, Toxic by inhalation, Harmful by ingestion, Harmful by skin absorption.

#### Target Organs

Thyroid, Central nervous system

#### GHS Classifications

Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Acute toxicity, Dermal (Category 4)  
Acute aquatic toxicity (Category 1)

#### GHS Label Elements, Including Precautionary Statements

Pictogram



**Signal Word** Warning

#### Hazard Statement(s)

H302+H312 Harmful if swallowed or in contact with skin.  
H332 Harmful if inhaled.  
H410 Very toxic to aquatic life with long lasting effects.

#### Precautionary Statement(s)

P273 Avoid release into the environment.  
P280 Wear protective gloves/protective clothing.  
P501 Dispose of contents/container to an approved waste disposal plant.

#### HMIS Classification

<b>Health Hazard</b>	2
<b>Flammability</b>	0
<b>Physical Hazards</b>	0
<b>Chronic Health Hazard</b>	*

**NFPA Rating**

<b>Health Hazard</b>	2
<b>Fire</b>	0
<b>Reactivity Hazard</b>	0

**Potential Health Effects**

<b>Inhalation</b>	Toxic if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	Harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	Harmful if swallowed.

---

### 3.) INFORMATION ON INGREDIENTS

<b>EINECS</b>	<b>PERCENT</b>	<b>CAS NO:</b>
217-175-6	100	1762-95-4
<b>EINECS</b>	<b>PERCENT</b>	<b>CAS NO:</b>

---

### 4.) FIRST AID MEASURES

**Inhalation**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin Contact**

Wash off with soap and plenty of water. Consult a physician.

**Eye Contact**

Flush eyes with water as a precaution.

**Ingestion Contact**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**General Advice:**

Consult a physician. Show this MSDS to the doctor in attendance. Move out of the dangerous area.

---

### 5.) FIRE FIGHTING MEASURES

**Extinguishing Media**

Dry powder

**Special Fire Fighting Procedures****Fire and Explosion Hazards****Hazardous Combustion Products**

Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides, and sulfur oxides.

**Protective Measure in Fire**

Wear self contained breathing apparatus for fire fighting if necessary.

---

### 6.) ACCIDENTAL RELEASE MEASURES

**Personal Precaution in Spill**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environment**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Spill Clean Up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

---

**7.) HANDLING AND STORAGE****Usage Precautions**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Usage Descriptions****Storage Precautions**

Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids.

**Handling Precautions**

Hygroscopic, air sensitive. Handle and store under inert gas.

---

**8.) EXPOSURE CONTROLS AND PERSONAL PROTECTION****Protective Equipment****Process Conditions**

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

**Respirators**

Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Protective Gloves**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye Protection**

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Other Protection**

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygienic Work Practices**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

---

**9.) PHYSICAL AND CHEMICAL PROPERTIES****a) Appearance (physical state, color, etc.)**

White Crystalline Powder

**b) Odor**

Odorless

**c) Odor threshold**

No data available

**d) pH**

4.0-5.5

**e) Melting Point/freezing point**

152-154°C

**f) Initial boiling Point and boiling range**

No data available

**g) Flash Point**

Not Applicable

**h) Evaporation rate**

No data available

**i) Flammability (solid,gas)**

No data available

**j) Upper/lower flammability or explosive limits**

No data available

**k) Vapor pressure**

0.000114hPa(0.000086mmHg) @ 20C (68F)

**l) Vapor density**

No data available

**m) Relative density**

1.300 g/cm3

**n) Solubility(ies)**

Freely Soluble ca. 76.1 g/l at 20°C

**o) Partition coefficient: n-octanol/water**

log Pow: -2.287 - The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.

**p) Auto-ignition temperature**

No data available

**q) Decomposition temperature**

No data available

**r) Viscosity**

No data available

**s) Specific Gravity**

1.305

---

## 10.) STABILITY AND REACTIVITY

**Stability**

Stable under recommended storage conditions.

**Hazardous Decomp Products**

Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides, sulfur oxides.

**Conditions to Avoid**

Avoid moisture. Exposure to air may affect product quality. Strong oxidizing agents, strong acids. Forms shock-sensitive mixtures with certain other materials, lead nitrate. Materials to avoid: Strong oxidizing agents, strong acids. Forms shock-sensitive mixtures with certain other materials. Lead Nitrate.

---

## 11.) TOXICOLOGICAL INFORMATION

**Toxic Dose LD 50**

750 mg/kg (Oral-Rat)

**Toxicological Info**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or potential carcinogen by IARC, ACGIH, NTP, and OSHA.

**Inhalation**

Toxic if inhaled. May cause respiratory tract irritation.

**Skin**

Harmful if absorbed through skin. May cause skin irritation.

**Eyes**

May cause eye irritation.

**Medical Symptoms****12.) ECOLOGICAL INFORMATION****Toxicity**

Very toxic to aquatic life with long lasting effects.

**Distribution****Chemical Fate****13.) DISPOSAL CONSIDERATIONS****Disposal Methods**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of contaminated packaging as unused product.

**General Cleaning****14.) TRANSPORTATION INFORMATION****DOT - GROUND TRANSPORTATION****Proper Shipping Name**

Environmentally hazardous substances, solid, n.o.s (Ammonium thiocyanate)

**Hazzard Class**

9

**UN Number**

3077

**Packing Group**

III

**IATA/IMDG REGULATIONS****Proper Shipping Name**

Environmentally hazardous substances, solid, n.o.s (Ammonium thiocyanate)

**Hazzard Class**

9

**UN Number**

3077

**Packing Group**

III

**IMDG EMS**

N/a

Shipping Options for this product include

**Transportation Notes** NMFC 43150 -- CLASS70 HST 2930.90.30.00**15.) REGULATORY INFORMATION****Chemical Inventory Status Part 1**

Ingredient	CASNO	TSCA	EINECS	China	Japan	Australia
Ammonium Thiocyanate	1762-95-4	Yes	Yes	No	No	No

**Chemical Inventory Status Part 2**

Ingredient	CASNO	Korea	DSL	NDSL	Phil.
Ammonium Thiocyanate	1762-95-4	No	Yes	No	No

**Federal, State, International Regulations- Part 1**

Ingredient	CASNO	SARA 302		
		RQ	TPQ	LIST
Ammonium Thiocyanate	1762-95-4	No	No	No

**SARA 313****Federal, State, International Regulations- Part 2**

Ingredient	CASNO	RCRA 261.33	TSCA 8(d)	CERCLA
Ammonium Thiocyanate	1762-95-4	No	No	No

**Additional Items**

Chemical Weapons Convention			Acute	TSCA 12(b)	CDTA	SARA 311/312	Reactivity	Chronic
No			No	No	No	No	No	No
Fire	Pressure	Austrian HazChem Code			Poison Schedule		WHMIS	
No	No	No			No		No	

**16.) MISC. INFORMATION****Information Sources****Revision Comments**

Revised November 2012 for GHS Standards. Updated 2-20-15 Revised February 2014 to align with internal document control. Updated 8-17-2016.

**Other Information**

DOT Classification: Not Regulated. Federal and State: Connecticut hazardous material survey, Illinois toxic substances disclosure to employee act, Illinois chemical safety act, New York release reporting list, Pennsylvania RTK, Mass.RTK, Mass spill list, New Jersey, New Jersey spill list, Louisiana spill reporting, TSCA 8b;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 .

**17.) DISCLAIMER**

Barium & Chemicals, Inc. provides this information as it relates only to the specific product designated herein. All information contained in this SDS should be provided to the user's employees and/or customers. The information contained herein relates only to the environmental, health and safety precautions for the product and is not intended to be relied upon as technical specifications for commercial or other purposes. Do not use the ingredient information and/or ingredient percentages in this SDS as product specification. For product specification refer to a Product Specification and/or a Certificate of Analysis provided by or requested from Barium & Chemicals, Inc. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process. This information is intended only as a guide to the appropriate handling of the product by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Conditions of use are beyond the control of Barium & Chemicals, Inc. Users are responsible to verify the applicability of this information under their own operating conditions to determine whether the product is suitable for a particular purpose and assume all risks of use, handling and disposal of the product, or from the publication, reliance upon or other use of the information contained herein. This information is furnished without warranty, expressed or implied;except that it is accurate to the best knowledge of Barium & Chemicals, Inc. and is based upon data obtained from the manufacturer and/or recognized technical sources. Barium & Chemicals, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product of information provided herein, and shall under no circumstances be liable for incidental or consequential damages. Barium & chemicals, Inc. assumes no responsibility for use, or reliance upon this information. Compliance with all applicable federal, state and local laws and regulations remains the responsibility of the user.