



## Safety Data Sheet

Date of Issue: 27.11.2024

Date of Expiry: 27.11.2029

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : ECP Limited  
**Address** : PO Box 34125, Birkenhead, Auckland 0746  
**Telephone** : +64 9 480 4386  
**Facsimile** : +64 9 480 4385  
**Emergency phone number** : 0800 243 622 (24 hours)

<b>Product Name</b>	<b>Ammonium Thiocyanate</b>
<b>Product Code</b>	13801
<b>CAS No.</b>	1762-95-4

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### 2.1 GHS Classification

Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312  
Serious eye damage/eye irritation (Category 1), H318  
Hazardous to the aquatic environment - chronic hazard (Category 3), H412

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



**Signal Word** : **Danger**

##### Hazard Statements

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H318 Causes serious eye damage.  
H412 Harmful to aquatic life with long lasting effects.

##### Precautionary Statements

###### Prevention

P261 Avoid breathing dust.  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

###### Response

P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

## 2.3 Other hazards

Contact with acids liberates very toxic gas.

## 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	Ammonium rhodanide
Formula	:	CH <sub>4</sub> N <sub>2</sub> S
Molecular weight	:	76.12 g/mol
CAS-No.	:	1762-95-4
EC-No.	:	217-175-6
Index-No.	:	615-004-00-3

## 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Sulfur oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

### **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### **5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### **6.4 Reference to other sections**

For disposal see section 13.

## **7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Tightly closed. Dry.

Do not store near acids.

hygroscopic Air sensitive. Handle and store under inert gas.

#### **Storage class**

Storage class (TRGS 510): 13: Non Combustible Solids

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values

## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

#### Skin protection

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.

#### Body 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.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a 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.

## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	White.
Appearance	:	Crystalline powder.
Molecular mass	:	76.12 g/mol
Odour	:	Odourless.
Odour threshold	:	Not available
Melting point	:	152 – 154 °C
Freezing point	:	Not applicable
Boiling point	:	Not available
Flammability	:	Non flammable.
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not available
pH	:	4.5 – 6 at 25°C
pH solution concentration	:	5 %
Viscosity, kinematic	:	Not applicable
Solubility	:	Water: 76.1 g/l at 20°C - Soluble
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	1.3 g/cm <sup>3</sup>
Relative density	:	Not available
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available

## 10: Stability and reactivity

### 10.1 Reactivity

Contact with acids liberates very toxic gas.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following substances:

Oxidizing agents, nitrates, Sensitive to impact and/ or friction.

With chlorates

Generates dangerous gases or fumes in contact with:  
acids

### 10.4 Conditions to avoid

Avoid moisture. Exposure to air may affect product quality.

### 10.5 Incompatible materials

various metals

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 750 mg/kg

Remarks: (RTECS)

Symptoms: Nausea, Vomiting, Diarrhea

Acute toxicity estimate Inhalation - 4 h - 1.6 mg/l - dust/mist  
(Expert judgment)

Acute toxicity estimate Dermal - 1,100.1 mg/kg  
(Expert judgment)

#### Skin corrosion/irritation

Skin - EPISKIN Human Skin Model Test

Result: No skin irritation - 5 min

(Regulation (EC) No. 440/2008, Annex, B.46)

#### Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: Causes serious eye damage. - 4 h

(OECD Test Guideline 437)

#### Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: sodium thiocyanate

#### Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471  
Result: negative

**Carcinogenicity**  
No data available

**Reproductive toxicity**  
No data available

**Specific target organ toxicity - single exposure**  
No data available

**Specific target organ toxicity - repeated exposure**  
No data available

**Aspiration hazard**  
No data available

### 11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 92 d - NOAEL (No observed adverse effect level) - 20 mg/kg

RTECS: XK7875000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12: Ecological information

### 12.1 Toxicity

Toxicity to fish

static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - 65 mg/l - 96 h  
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - *Daphnia magna* (Water flea) - 3.56 mg/l - 48 h  
(OECD Test Guideline 202)

Toxicity to algae

static test EC50 - *Pseudokirchneriella subcapitata* - 116 mg/l - 72 h  
(OECD Test Guideline 201)

Toxicity to bacteria

static test NOEC - activated sludge - 50 mg/l - 12 h

Remarks: (in analogy to similar products)  
(ECHA)

The value is given in analogy to the following substances: Potassium Thiocyanate

The value is given in analogy to the following substances: Ammonium thiocyanate

Toxicity to fish(Chronic toxicity)

flow-through test NOEC - *Pimephales promelas* (fathead minnow) - 1.84 mg/l - 124 d

Remarks: (in analogy to similar products)  
(ECHA)

The value is given in analogy to the following substances: Potassium thiocyanate

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

semi-static test NOEC - *Daphnia magna* (Water flea) - 1.25 mg/l - 21 d  
(OECD Test Guideline 211)

## 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d  
Result: 80 % - Readily biodegradable.  
(OECD Test Guideline 301D)

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Endocrine disrupting properties

No data available

## 12.7 Other adverse effects

Discharge into the environment must be avoided.

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

## 14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	-		

## 15: Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulatory information

HSNO Approval Code: HSR003426

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits  
Group Standard 2006  
Tracking Required: not required  
Approved Handler Cert.: not required

#### **16: Disclaimer**

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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