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## SECTION 1: COMPANY AND PRODUCT INFORMATION

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### 1.1 Product identifiers

Product name : Ammonium thiocyanate  
Product code : 40100001  
CAS number : 1762-95-4  
Synonyms : Ammonium rhodanide

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

Address : 4150 Tuller Rd.  
Suite 228  
Dublin, OH 43017  
Email : tech@bio-world.com  
Phone : 614-792-8680, Toll free: 1-888-bio-PLUS  
Fax : 614-792-8685

### 1.4 Emergency telephone number

Emergency phone : 1-888-bio-PLUS

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## SECTION 2: HAZARDS IDENTIFICATION

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### 2.1 Classification of substance or mixture

Acute toxicity, Oral (Category 4), H302.  
Acute toxicity, Inhalation (Category 4), H332.  
Acute toxicity, Dermal (Category 4), H312.  
Acute aquatic toxicity (Category 3), H402.  
Chronic aquatic toxicity (Category 3), H412.

### 2.2 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302.  
Acute toxicity, Inhalation (Category 4), H332.  
Acute toxicity, Dermal (Category 4), H312.  
Acute aquatic toxicity (Category 3), H402.  
Chronic aquatic toxicity (Category 3), H412.

### 2.3 Label elements and precautionary statements

Pictogram : 

Signal word : Warning

Hazard statement(s) : H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s) : P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P322 Specific measures .  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.  
P501 Dispose of contents/ container to an approved waste disposal plant.

## 2.4 Hazards not otherwise classified (HNOC) or not covered by GHS

None

## 2.5 NFPA Rating

Health hazard : 2  
Fire hazard : 0  
Reactivity hazard : 0

## 2.6 HMIS Rating

Health hazard : 2  
Chronic health hazard : \*  
Reactivity hazard : 0  
Flammability : 0  
Physical hazard : 0

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1 Substances

| Substance   | CAS#      | EC#       | Concentration |
|---|-----------|-----------|---------------|
| Ammonium thiocyanate<br>M.F: CH <sub>4</sub> N <sub>2</sub> S<br>M.W: 76.12 g/mol | 1762-95-4 | 217-175-6 | >98%          |

### 3.2 Hazardous components & classification

Acute Tox. 4; Aquatic Acute 3; Aquatic Chronic 3; H302 + H312 + H332, H412

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## SECTION 4: FIRST AID MEASURES

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### 4.1 Description of first aid measures

#### In case of inhalation

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

#### In case of skin contact

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

#### In case of eye contact

Flush eyes with water as a precaution.

#### **In case of ingestion**

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

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

Not available

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

Not available

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### **SECTION 5: FIREFIGHTING MEASURES**

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#### **5.1 Suitable extinguishing media**

Dry powder

#### **5.2 Unsuitable extinguishing media**

Not available

#### **5.3 Special hazards arising from the substance**

Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Sulphur oxides

#### **5.4 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

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### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

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

**For personal protection see section 8**

#### **6.2 Environmental precautions**

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

#### **6.3 Methods and material for containment and cleaning 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.

**For proper disposal see section 13**

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### **SECTION 7: HANDLING AND STORAGE**

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

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Corrosive hazard. Wear protective gloves/clothing and eye/face protection.

**For precautions see section 2**

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

Storage conditions : Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Protect from moisture. Store at room temperature.

Incompatible materials : Not available

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Engineering controls

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

### 8.3 Personal protective equipment

- Eye/face 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 EN 166(EU).
- Skin protection : Wear protective gloves and protective clothing.
- Body protection : Wear protective gloves and protective clothing.
- Respiratory protection : If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
- Control of environmental exposure : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- General hygiene considerations : When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

- a) Appearance : Crystalline powder
- b) Physical states : Solid
- c) Odor : May be unpleasant
- d) Odor threshold : Not available
- e) Melting point : 152 °C
- f) Boiling point range : Not available
- g) pH : 4.0 - 5.5 at 76.1 g/l at 25 °C (77 °F)
- h) Density : 1.30 g/cm<sup>3</sup>
- i) Flash point : Not available
- j) Evaporation rate : Not available
- k) Flammability : Not available
- l) Upper/lower flammability or explosive limits: : Not available
- m) Vapor pressure : 0.000114 hPa (0.000086 mmHg) at 20 °C (68 °F)

|    |                                       |                                |
|----|---------------------------------------|--------------------------------|
| n) | Vapor density                         | : Not available                |
| o) | Relative density                      | : 1.300 g/cm <sup>3</sup>      |
| p) | Water solubility                      | : ca.76.1 g/l at 20 °C (68 °F) |
| q) | Partition coefficient:n-octanol/water | : -2.29                        |
| r) | Autoignition temperature              | : Not available                |
| s) | Decomposition temperature             | : Not available                |
| t) | Kinematic viscosity                   | : Not available                |
| u) | Explosive properties                  | : Not available                |
| v) | Oxidizing properties                  | : Not available                |
| w) | Solubility in other solvents          | : Not available                |
| x) | Surface tension                       | : Not available                |

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## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

Not available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Stability note(s)

Not available

### 10.4 Polymerization

Not available

### 10.5 Possibility of hazardous reactions

Contact with acids may liberate toxic gas.

### 10.6 Incompatible materials

Strong oxidizing agents.

### 10.7 Hazardous decomposition products

Hydrogen cyanide. Hydrogen sulfide. Carbon oxides. Nitrogen oxides (NO<sub>x</sub>).

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### 11.1 Acute toxicity

LD50 Oral : Not available

LD50 Dermal : Not available

LC50 Inhalation : Not available

### 11.2 Skin corrosion/irritation

Not available

### 11.3 Serious eye damage/eye irritation

Not available

### 11.4 Respiratory or skin sensitization

Not available

### **11.5 Germ cell mutagenicity**

Not available

### **11.6 Carcinogenicity**

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### **11.7 Reproductive toxicity**

Not available

### **11.8 Specific target organ toxicity – single exposure**

Not available

### **11.9 Specific target organ toxicity – repeated exposure**

Not available

### **11.10 Aspiration hazard**

Not available

### **11.11 Additional Information**

Not available

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## **SECTION 12: ECOLOGICAL INFORMATION**

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### **12.1 Toxicity**

Not available

### **12.2 Aquatic toxicity**

Not available

### **12.3 Persistence and degradability**

Not available

### **12.4 Bioaccumulative potential**

Not available

### **12.5 Mobility in soil**

Not available

### **12.6 Results of PBT and vPvB assessment**

Not available

### **12.7 Other adverse effect**

Not available

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## **SECTION 13: DISPOSAL CONSIDERATIONS**

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### **13.1 Product**

Disposal should be in accordance with applicable regional, national and local laws and regulations

### 13.2 Packaging

Do not reuse container

### 13.3 Recommendation

Waste codes should be assigned by the user based on the application for which the product was used.

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## SECTION 14: TRANSPORTATION INFORMATION

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### 14.1 DOT (US)

Proper shipping name Environmentally hazardous substance, solid, n.o.s.\*

Description UN3077, Environmentally hazardous substance, solid, n.o.s.\*, 9, III

Marine pollutant This product contains a chemical which is listed as a marine pollutant according to DOT  
Emergency Response Guide Number 171

### 14.2 IMDG

UN/ID no UN3077

Hazard Class 9

Packing Group III

Proper shipping name Environmentally hazardous substance, solid, n.o.s.\*

Description UN3077, Environmentally hazardous substance, solid, n.o.s.\*, 9, III

Special Provisions 274, 335, 966, 967

EmS-No F-A, S-F

### 14.3 IATA

UN/ID no UN3077

Hazard Class 9

Packing Group III

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## SECTION 15: REGULATORY INFORMATION

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### 15.1 SARA

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard Yes

Chronic Health Hazard No

Fire hazard No

Sudden release of pressure hazard No

Reactive hazard No

### 15.2 Clean water act (CWA)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### 15.3 Right to know components

Massachusetts : Ammonium thiocyanate CAS-No-1762-95-4

Pennsylvania : Ammonium thiocyanate CAS-No-1762-95-4

New Jersey : Ammonium thiocyanate CAS-No-1762-95-4

California proposition : This product does not contain any Proposition 65 chemicals.  
65 components

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## **SECTION 16: OTHER INFORMATION**

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### **16.1 Disclaimer**

This product is offered by bioWORLD for research, laboratory or further manufacturing use. Not for human use or consumption. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant-ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall bio-WORLD.com 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 bio-WORLD.com has been advised of the possibility of such damages.

### **16.2 Copyright**

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### **16.2 Preparation Information**

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