## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product Identifiers

Product name : Ammonium thiocyanate, azanium thiocyanate
Type of product : Chemical substance
Product grade : LR, AR/ACS, AR, Special grade
CAS No : 1762-95-4

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

Identified uses : Reagent for analysis

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

RYZE CHEMIE PRIVATE LIMITED
Gami Industrial Park, Unit.13, Second Floor, C Block,
Plot No.C-39-A, TTC Industrial area, Navi Mumbai,
Thane, Maharashtra-400705
Safety@ryzechemie.com

### 1.4. Emergency Telephone Number: +91- 9930060404

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|---|
| Acute toxicity, Category 4 | H302: Harmful if swallowed. |
| Acute toxicity, Category 4 | H332: Harmful if inhaled. |
| Acute toxicity, Category 4 | H312: Harmful in contact with skin. |

| | |
|---|---|
| Serious eye damage, Category 1 | H318: Causes serious eye damage. |
| Long-term (chronic) aquatic hazard, Category 3 | H412: Harmful to aquatic life with long lasting effects. |

## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



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. |

Supplemental Hazard Statements : EUH032 Contact with acids liberates very toxic gas.

Precautionary statements :

**Prevention:**

| | |
|---|---|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### Reduced Labelling (<= 125 ml)

Hazard pictograms :



| | |
|---|---|
| Signal word | Danger |
| Hazard Statements | |
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Precautionary Statements | |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Supplemental Hazard information (EU) | |
| EUH032 | Contact with acids liberates very toxic gas. |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Index-No. : 615-004-00-3

EC-No. : 217-175-6

**Components**

| Chemical name | CAS-No.<br>EC-No. | Concentration (% w/w) | M-Factor, SCL, ATE |
|---|---|---|---|
| Ammonium thiocyanate | 1762-95-4<br>217-175-6 | >= 90 - <= 100 | Acute toxicity estimate<br><br>Acute inhalation toxicity (dust/mist): 1,6 mg/l<br>Acute dermal toxicity: 1.100,1 mg/kg |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

| | | |
|---|---|---|
| General advice | : | Show this 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

## SECTION 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

| | | |
|---|---|---|
| Specific hazards during fire fighting | : | Not combustible.<br><br>Fire may cause evolution of:<br>nitrogen oxides<br>Sulphur oxides<br>Ammonia<br>Hydrogen cyanide (hydrocyanic acid)<br>Ambient fire may liberate hazardous vapours. |
| Hazardous combustion products | : | Carbon oxides<br><br>Nitrogen oxides (NOx)<br>Sulphur oxides |

### 5.3 Advice for firefighters

| | | |
|---|---|---|
| Special protective equipment for fire-fighters | : | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
| Further information | : | Suppress (knock down) gases/vapours/mists with a water spray jet.<br>Prevent fire extinguishing water from contaminating surface water or the ground water system. |

## SECTION 6: Accidental release measures

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

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

For personal protection see section 8.

### 6.2 Environmental precautions

| | | |
|---|---|---|
| Environmental precautions | : | Do not let product enter drains. |

### 6.3 Methods and material for containment and cleaning up

| | | |
|---|---|---|
| Methods for cleaning up | : | Cover drains. Collect, bind, and pump off spills.<br>Observe possible material restrictions (see sections 7 and 10).<br>Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. |

### 6.4 Reference to other sections

For disposal considerations see section 13.

## SECTION 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

| | | |
|---|---|---|
| Further information on storage conditions | : | Protected from light.<br><br>Tightly closed. Dry. |

| | | |
|---|---|---|
| Advice on common storage | : | Do not store near acids. |
| Storage class (TRGS 510) | : | 13, Non-Combustible Solids |
| Further information on storage stability | : | Recommended storage temperature sees product |

### 7.3 Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure Limits**

### 8.2 Exposure controls

**Personal protective equipment**

| | | |
|---|---|---|
| Eye/face protection | : | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>Tightly fitting safety goggles |

Hand protection

| | | |
|---|---|---|
| Material | : | Nitrile rubber |
| Break through time | : | 480 min |
| Glove thickness | : | 0,11 mm |
| Protective index | : | Full contact |
| Manufacturer | : | KCL 741 Dermatril® L |

| | | |
|---|---|---|
| Material | : | Nitrile rubber |
| Break through time | : | 480 min |
| Glove thickness | : | 0,11 mm |
| Protective index | : | Splash contact |
| Manufacturer | : | KCL 741 Dermatril® L |
| Remarks | : | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). |

| | | |
|---|---|---|
| Skin and body protection | : | protective clothing |
| Respiratory protection | : | required when dusts are generated.<br><br>Our recommendations on filtering respiratory |

protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: : Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
These measures have to be properly documented.

Advice : Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | solid (20 °C, 1.013 hPa) |
| Color | : | colourless |
| Odor | : | odourless |
| Odor Threshold | : | Not applicable |
| Melting point/ range | : | 152 - 154 °C |
| Boiling point | : | No data available |
| Flammability | : | The product is not flammable.<br>Method: Flammability (solids)<br>GLP: yes |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Flash point | : | Not applicable |
| Autoignition temperature | : | Not applicable |
| Decomposition temperature | : | No data available |
| pH | : | 4,0 - 5,5 (25 °C) |

| | | |
|---|---|---|
| | | Concentration: 76,1 g/l |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Flow time | : | No data available |
| Solubility(ies)<br>Water solubility | :<br> | <br>ca. 76,1 g/l (20 °C) |
| Partition coefficient: n-octanol/water | : | Not applicable for inorganic substances |
| Vapor pressure | : | < 0,1 hPa (20 °C)<br>Method: OECD Test Guideline 104<br>GLP: yes |
| Relative density | : | 1,31 (20 °C)<br>Method: OECD Test Guideline 109<br>GLP: yes |
| Density | : | 1,300 g/cm3 |
| Bulk density | : | 600 - 700 kg/m3 |
| Relative vapour density | : | No data available |

**9.2 Other information**

| | | |
|---|---|---|
| Explosives | : | No data available |
| Oxidizing properties | : | none |
| Burning rate | : | No data available |
| Evaporation rate | : | No data available |
| Molecular weight | : | 76,12 g/mol |

## SECTION 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

Hazardous reactions : Generates dangerous gases or fumes in contact with: Acids

### 10.4 Conditions to avoid

Conditions to avoid : no information available

### 10.5 Incompatible materials

Materials to avoid : various metals

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 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 estimates Inhalation - 4 h - 1,6 mg/l -

(Expert judgement)
Acute toxicity estimates Dermal - 1.100,1 mg/kg
(Expert judgement)

**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

**Endocrine disrupting properties**

**Product:**

| | |
|---|---|
| Assessment | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

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

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

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**Ammonium thiocyanate:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 65 mg/l<br>End point: mortality<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 203<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 3,56 mg/l<br>End point: Immobilization<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 202<br>GLP: yes |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata): 116 mg/l<br>Exposure time: 72 h |

Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

Toxicity to microorganisms : NOEC (activated sludge): 50 mg/l
Exposure time: 12 h
Test Type: static test
Analytical monitoring: yes
Remarks: (in analogy to similar products) (ECHA)
The value is given in analogy to the following substances: Potassium thiocyanateThe value is given in analogy to the following substances: Ammonium thiocyanate

Toxicity to fish (Chronic toxicity) : NOEC: 1,84 mg/l
Exposure time: 124 d
Species: Pimephales promelas (fathead minnow)
Test Type: flow-through test
Analytical monitoring: yes
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) : NOEC: 1,25 mg/l
End point: reproduction rate
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

**Components:**

**Ammonium thiocyanate:**

Biodegradability : Test Type: aerobic
Inoculum: activated sludge, non-adapted
Concentration: 2 mg/l
Result: Readily biodegradable.
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: yes

### 12.3 Bioaccumulative potential

**Components:**

**Ammonium thiocyanate:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | Remarks: Not applicable for inorganic substances |

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

| | | |
|---|---|---|
| Assessment | : | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |

### 12.6 Endocrine disrupting properties

**Product:**

| | | |
|---|---|---|
| Assessment | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

No data available

### 12.7 Other adverse effects

**Components:**

**Ammonium thiocyanate:**

| | | |
|---|---|---|
| Additional ecological information | : | Discharge into the environment must be avoided. |

## SECTION 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. |

## SECTION 14: Transport information

### 14.1 UN number or ID number

| | | |
|---|---|---|
| **ADR** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA_P** | : | Not regulated as a dangerous good |

**14.2 UN proper shipping name**

| | | |
|---|---|---|
| **ADR** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA_P** | : | Not regulated as a dangerous good |

**14.3 Transport hazard class(es)**

| | | |
|---|---|---|
| **ADR** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA_P** | : | Not regulated as a dangerous good |

**14.4 Packing group**

| | | |
|---|---|---|
| **ADR** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA (Cargo)** | : | Not regulated as a dangerous good |
| **IATA_P (Passenger)** | : | Not regulated as a dangerous good |

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

| | | |
|---|---|---|
| Remarks | : | Not classified as dangerous in the meaning of transport regulations. |

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

| | | |
|---|---|---|
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | Not applicable |
| REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59). | : | Not applicable |
| Regulation (EU) No 2024/590 on substances that deplete the ozone layer | : | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic | : | Not applicable |

pollutants (recast)

| | | |
|---|---|---|
| REACH - List of substances subject to authorization (Annex XIV) | : | Not applicable |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | | Not applicable |

**Other regulations:**

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Abbreviation and Acronyms

CAS - Chemical Abstracts Service
TSCA - United States Toxic Substances Control Act Section 8(b)Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non- Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
WEL - Workplace Exposure Limit
TWA - Time Weighted Average
ACGIH - American Conference of Governmental Industrial Hygienists
IARC - International Agency for Research on Cancer
DNEL - Derived No Effect Level
PNEC - Predicted No Effect Concentration
RPE - Respiratory Protective Equipment
LD50 - Lethal Dose 50%
LC50 - Lethal Concentration 50%
EC50 - Effective Concentration 50%
NOEC - No Observed Effect Concentration
POW- Partition coefficient Octanol: Water
PBT - Persistent, Bioaccumulative, Toxic
vPvB - very Persistent, very Bioaccumulative
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
MARPOL - International Convention for the Prevention of Pollution from Ships
OECD - Organization for Economic Co-operation and Development
ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor
VOC - (Volatile Organic Compound)

**Disclaimer:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

Ryze Chemie will not be held liable for any damage resulting from handling or from contact with the above product

**End of safety data sheet**