

**Ammonium thiocyanate a.r.**

Revision: 05.11.2025

Product code: AC14.00877

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Ammonium thiocyanate a.r.

REACH Registration Number: 01-2119543696-28-0000  
CAS No: 1762-95-4  
Index No: 615-004-00-3  
EC No: 217-175-6

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

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

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Responsible Department: AnalytiChem  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

**1.4. Emergency telephone number:**

+44 20 3807 3798 (CHEMTREC)

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**Further Information**

No data available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Acute Tox. 4; H332  
Acute Tox. 4; H312  
Acute Tox. 4; H302  
Eye Dam. 1; H318  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008**

Signal word: Danger

Pictograms:

**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.  
EUH032      Contact with acids liberates very toxic gas.

**Precautionary statements**

P273      Avoid release to the environment.  
P280      Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P305+P351+P338      IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310      Immediately call a POISON CENTER/doctor.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Sum formula: NH4SCN  
Molecular weight: 76,12 g/mol

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**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
1762-95-4	ammonium thiocyanate			100 %
	217-175-6	615-004-00-3	01-2119543696-28-0000	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 3; H332 H312 H302 H318 H412 EUH032			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
1762-95-4	217-175-6	ammonium thiocyanate	100 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 508 mg/kg		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Self-protection of the first aider

**After inhalation**

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

Vomiting

Gastrointestinal complaints

Circulatory collapse

Blood pressure drop

Spasms

Narcotic effects

Respiratory complaints

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Dyspnoea

Release of: Hydrogen cyanide (hydrocyanic acid)

**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**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-combustible solids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

Sulphur oxides

Ammonia (NH3)

Hydrogen cyanide (hydrocyanic acid)

**5.3. Advice for firefighters**

Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Avoid contact with skin, eyes and clothes.

Provide adequate ventilation. Avoid dust formation. Do not breathe dust.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.

Make available sufficient washing facilities

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Further information on handling**

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.

Protect against: Light

**Hints on joint storage**

Take national regulations into account.

**Further information on storage conditions**

Store in a dry place.

storage temperature +5°C - +30°C

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

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

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## DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
DNEL type				
1762-95-4	ammonium thiocyanate			
Worker DNEL, long-term		inhalation	systemic	2,8 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	4 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,7 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	2 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,2 mg/kg bw/day

## PNEC values

CAS No	Substance	Value
Environmental compartment		
1762-95-4	ammonium thiocyanate	
Freshwater		0,095 mg/l
Freshwater (intermittent releases)		0,027 mg/l
Marine water		0,009 mg/l
Freshwater sediment		0,543 mg/kg
Marine sediment		0,054 mg/kg
Secondary poisoning		1,667 mg/kg
Micro-organisms in sewage treatment plants (STP)		30 mg/l
Soil		6,336 mg/kg

## 8.2. Exposure controls

## Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Do not breathe dust. Avoid dust formation.

## Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

## Hand protection

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: vertrieb@kcl.de with the following specification (test according to EN 374):

By long-term hand contact

Trade name/designation KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet

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supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Filtering device with filter or ventilator filtering device of 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.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	colourless
Odour:	odourless
Melting point/freezing point:	150 °C
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	170 °C
pH-Value (at 20 °C):	4,8-5,8 (50 g/l)
Viscosity / kinematic:	No data available
Water solubility:	1600 g/l
(at 20 °C)	
Solubility in other solvents	
No data available	
Partition coefficient n-octanol/water:	No data available
Vapour pressure:	0,000152 hPa hPa
(at 20 °C)	
Vapour pressure:	No data available
Density:	1,31 g/cm³
Bulk density:	600-700 kg/m³
Relative vapour density:	No data available

**9.2. Other information****Information with regard to physical hazard classes****Explosive properties**

No data available

**Self-ignition temperature**

Solid:

No data available

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Gas: No data available

Oxidizing properties

No data available

**Other safety characteristics**

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: 0

Solid content: 0

Sublimation point: No data available

Softening point: No data available

Pour point: No data available

No data available: No data available

Viscosity / dynamic: No data available

Flow time: No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No data available

**10.2. Chemical stability**

Protect against: Light

**10.3. Possibility of hazardous reactions**

Oxidising agent

Acid

Nitrate

**10.4. Conditions to avoid**

Light

Heat

sensitive to impact Handle with care - avoid bumps, friction and impact.

**10.5. Incompatible materials**

Metal

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes****Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Harmful if inhaled.

Harmful in contact with skin.

Harmful if swallowed.

Contact with acids liberates very toxic gas.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1762-95-4	ammonium thiocyanate				
	oral	LD50 mg/kg	508	Japanese quail	Study report (1999) OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2003) OECD Guideline 402
	inhalation vapour	ATE	11 mg/l		
	inhalation dust/mist	ATE	1,5 mg/l		

**Irritation and corrosivity**

Serious eye damage/eye irritation: Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

No data available

**Other information**

No data available

**Further information**

Irritant

Vomiting

Gastrointestinal complaints

Circulatory collapse

Blood pressure drop

Spasms

Narcotic effects

Respiratory complaints

Dyspnoea

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Release of: Hydrogen cyanide (hydrocyanic acid)

**SECTION 12: Ecological information****12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1762-95-4	ammonium thiocyanate						
	Acute fish toxicity	LC50	65 mg/l	96 h	Oncorhynchus mykiss	Study report (1999)	EU Method C.1
	Acute algae toxicity	ErC50	116 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1999)	OECD Guideline 201
	Acute crustacea toxicity	EC50	3,56 mg/l	48 h	Daphnia magna	Study report (1999)	OECD Guideline 202
	Fish toxicity	NOEC	1,84 mg/l	124 d	Pimephales promelas	Study report (1994)	Test was based on exposing juvenile fish
	Crustacea toxicity	NOEC	1,25 mg/l	21 d	Daphnia magna	Study report (2005)	OECD Guideline 211

**12.2. Persistence and degradability**

Readily biodegradable (according to OECD criteria).

**12.3. Bioaccumulative potential**

No data available

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
1762-95-4	ammonium thiocyanate	-2,29

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific

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to the industry and process.

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:****14.2. UN proper shipping name:****14.3. Transport hazard class(es):****14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)****14.1. UN number or ID number:****14.2. UN proper shipping name:****14.3. Transport hazard class(es):****14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)****14.1. UN number or ID number:****14.2. UN proper shipping name:****14.3. Transport hazard class(es):****14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number or ID number:****14.2. UN proper shipping name:****14.3. Transport hazard class(es):****14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:

No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

**SECTION 16: Other information****Abbreviations and acronyms**

Acute Tox. 4: Acute toxicity, hazard category 4

Eye Dam. 1: Serious eye damage, hazard category 1

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

**Relevant H and EUH statements (number and full text)**

H302 Harmful if swallowed.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

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H332                    Harmful if inhaled.  
H412                    Harmful to aquatic life with long lasting effects.  
EUH032                Contact with acids liberates very toxic gas.

**Further Information**

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.