



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

AMMONIUM THIOCYANATE 98,5% AR

PRODUCT CODE : O-5035

CAS No : 1762-95-4

FORMULA : NH_4SCN

UN No : Not Applicable

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

AMMONIUM THIOCYANATE 98,5% AR



MSDS Number : 0051

Date : Aug 19th, 2024

Version : 1.0

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

- 1.1 Product Name** : AMMONIUM THIOCYANATE 98,5% AR
Synonyms : Ammonium sulfocyanide, Ammonium rhodanide, Thiocyanic acid ammonium salt, Ammonium sulfocyanate
CAS No. : 1762-95-4
HS Code : 2842 9090
Chemical Formula : NH_4SCN $\text{CH}_4\text{N}_2\text{S}$ Hill
Molecular Weight : 76.12 g/mol
Product Code : 0-5035
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com,
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H302 + H312 + H332

H412

Harmful if swallowed, in contact with skin or if inhaled

Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P273

P280

Avoid release to the environment.

Wear protective gloves/ protective clothing.

Supplemental Hazard Statements

EUH032

Contact with acids liberates very toxic gas.

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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. Contact with acids liberates very toxic gas.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Ammonium sulfocyanide, Ammonium rhodanide, Thiocyanic acid ammonium salt, Ammonium sulfocyanate, Ammonium rhodanide		
Formula	: NH ₄ SCN	CH ₄ N ₂ S	Hill
Molecular weight	: 76.12 g/mol		
CAS-No.	: 1762-95-4		
EC-No.	: 217-175-6		
Index-No.	: 615-004-00-3		

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Ammonium thiocyanate CAS-No. 1762-95-4 EC-No. . 217-175-6 Index-No 615-004-00-3	Acute Tox. 4; Aquatic Chronic 3; H332, H312, H302, H412	<=100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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 polyethylene glycol and afterwards with plenty of water. Take victim immediately to hospital. Take off all contaminated clothing immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

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

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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

Dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, 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 materials 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.

6.4 Reference to other sections

For disposal 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

Storage conditions

Tightly closed. Dry. Do not store near acids. hygroscopic Air sensitive. Handle and store under inert gas.

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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

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****8.2 Exposure control****Appropriat engineering controls**

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

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

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Body Protection

protective clothing.

Respiratory protection

required when dusts are generated. 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.

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Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: crystalline
	Color : white
Odour	odourless
Odour Threshold	No data available
pH	4,0 - 5,5 at 76,1 g/l at 25 °C
Melting point/freezingpoint	Melting point/range: 152 - 154 °C - lit.
Initial boiling point and boiling range	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
Upper/lower flammability or explosive limits	No data available
Vapour pressure	< 0,1 hPa at 20 °C - OECD Test Guideline 104
Vapour density	No data available
Density	1,300 g/cm ³
Relative density	1,31 at 20 °C - OECD Test Guideline 109
Water solubility	ca.76,1 g/l at 20 °C
Partition coefficient: noctanol/water	- Not applicable for inorganic substances
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	none

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Contact with acids liberates very toxic gas.

10.2 Chemical stability

Stable under recommended storage conditions.

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 Generates dangerous gases or fumes in contact with: Acids

10.4 Conditions to avoid

Avoid moisture. Exposure to air may affect product quality. no information available

10.5 Incompatible materials

various metals

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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 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 sensitisation

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(Ammonium thiocyanate)

Specific target organ toxicity - single exposure

No data available(Ammonium thiocyanate)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Ammonium thiocyanate)

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)

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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 - 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.

SECTION 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 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

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 Other adverse effects

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.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

Further information

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage.
H332	Harmful if inhaled.

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

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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