



Safety Data Sheet Ammoniumthiocyanate

Section 1: Chemical Product and Company Identification

Product Name: Ammonium thiocyanate Catalog Codes: 495 CAS#: 1762-95-4 RTECS: XK875000 Synonym: Ammonium rhodanate, Ammonium sulfocyanate, Ammonium sulfocyanide Chemical Name: Ammonium thiocyanate Chemical Formula: NH ₄ SCN	Contact Information: Email: info@drm-chem.com Address: #7, Afshar javan Alley, Sohrevardi St, Tehran, Iran post code: 1551818111 Tehran Sales: +98 21 88177760 Order Online: Drm-chem.com
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Section 2: Composition and Information on Ingredients

Composition:		
Name	CAS #	% by Weight
Ammonium thiocyanate	1762-95-4	100
Toxicological Data on Ingredients: LD50 Oral - Rat - 750 mg/kg.		

Section 3: Hazards Identification

Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 4), H332 Acute toxicity, Dermal (Category 4), H312 Serious eye damage (Category 1), H318 Long-term (chronic) aquatic hazard (Category 3), H412 For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word	Hazard	Danger
statement(s)	H302 + H312 + H332 H318 H412	Harmful if swallowed, in contact with skin or if inhaled. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P273 P280 P301 + P312 P302 + P352 + P312	Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P312 P305 + P351 + P338	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. 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.

Reduced Labeling (<= 125 ml)

Pictogram



Signal word	Hazard	Danger
statement(s)	H318 H412	Causes serious eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

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

EUH032 Contact with acids liberates very toxic gas.

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.

Section 4: First Aid Measures

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.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 3) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

Section 5: Firefighting measures

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.

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Sulfur oxides

Not combustible.

Fire may cause evolution of:

nitrogen oxides, Sulfur oxides, Ammonia, Hydrogen cyanide (hydrocyanic acid)

Ambient fire may liberate hazardous vapours.

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.

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.

Section 6: Accidental Release Measures

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.

Environmental precautions

Do not let product enter drains.

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.

Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

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 3.

Conditions for safe storage, including any incompatibilities

Storage conditions

Protected from light. Tightly closed. Dry.

Do not store near acids.

Recommended storage temperature see product label.

Storage class

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

Section 8: Exposure Controls/Personal Protection

Control parameters

Ingredients with workplace control parameters

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). Tightly fitting safety goggles

Skin protection

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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

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.

Control of environmental exposure

Do not let product enter drains.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

a) Appearance	Form: solid
Color: colorless	
b) Odor	odorless
c) Odor Threshold	Not applicable
d) pH	4,0 - 5,5 at 76,1 g/l at 25 °C
e) Melting point/freezing point	Melting point/range: 152 - 154 °C
f) Initial boiling point and boiling range	No data available
g) Flash point	
h) Evaporation rate	Not applicable
i) Flammability (solid,gas)	No data available
j) Upper/lower flammability or explosive limits	The product is not flammable. - Flammability (solids) No data available
k) Vapor pressure	
l) Vapor density	< 0,1 hPa at 20 °C - OECD Test Guideline 104
m) Density	No data available
Relative density	1,300 g/cm ³
n) Water solubility	1,31 at 20 °C - OECD Test Guideline 109
o) Partition coefficient: n-octanol/water	ca.76,1 g/l at 20 °C
p) Autoignition temperature	- Not applicable for inorganic substances
q) Decomposition temperature	No data available
r) Viscosity	No data available
	Viscosity, kinematic: No data available
	Viscosity, dynamic: No data available

s)Explosive properties No data available

t)Oxidizing properties none

Other safety information

Bulk density 600 - 700 kg/m³

Section 10: Stability and Reactivity Data

Reactivity

Contact with acids liberates very toxic gas.

Chemical stability

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

Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with:

Acids

Conditions to avoid

no information available

Incompatible materials

various metals

Hazardous decomposition products

In the event of fire: see section 5

Section 11: Toxicological Information

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

(Expert judgment)

Acute toxicity estimate Dermal - 1.100,1 mg/kg

(Expert judgment)

Skin corrosion/irritation

Skin - EPIKIN 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

Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 92 d - NOAEL (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**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

Persistence and degradability

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

Bioaccumulative potential

No data available

Mobility in soil

No data available

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.

Other adverse effects

Discharge into the environment must be avoided.

Section 13: Disposal Considerations

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

UN number

ADR/RID: -

IMDG: -

IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

Packaging group

ADR/RID: -

Environmental hazards

IMDG: -

IATA: -

ADR/RID: no

Special precautions for user IMDG Marine pollutant: no IATA: no

Further information

Not classified as dangerous in the meaning of transport regulations.

Section 15: Other Regulatory Information

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

This material safety data sheet 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.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

Section 16: Other Information

References: Not available

Other Special Considerations: Not available

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