

SAFETY DATA SHEET

according to the Global Harmonized System (and with all of the information required by the HPR)

Revision Date 11/12/2019

Version 1.8

SECTION 1. Identification

Product identifier

Product number	105125
Product name	Potassium thiocyanate for analysis EMSURE® ACS,ISO,Reag. Ph Eur
CAS-No.	333-20-0

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

Identified uses	Reagent for analysis
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Details of the supplier of the safety data sheet

Company	Millipore (Canada) Ltd. 2149 Winston Park Dr. Oakville Ontario L6H 6J8 Canada General Inquiries: +1 905 829 9500 Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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SECTION 2. Hazards identification

GHS Classification

Acute toxicity, Category 4, Oral, H302
Acute toxicity, Category 4, Inhalation, H332
Acute toxicity, Category 4, Dermal, H312
Serious eye damage, Category 1, H318

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

GHS-Labeling

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Product name

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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.

Precautionary Statements

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.
P280 Wear protective gloves/ eye protection/ face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P322 Specific measures (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula	KSCN	CKNS (Hill)
Molar mass	97.18 g/mol	

Hazardous ingredients

Chemical name (Concentration)

CAS-No.

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Potassium thiocyanate (>= 90 % - <= 100 %)
333-20-0

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

Eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Subsequently administer: activated charcoal (20 - 40 g in 10% slurry).

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

agitation, spasms, cardiovascular disorders, ataxia (impaired locomotor coordination), CNS disorders

Irritation and corrosion

Risk of serious damage to eyes.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting 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

Not combustible.

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Ambient fire may liberate hazardous vapors.
Fire may cause evolution of:
Sulfur oxides, nitrogen oxides, Hydrogen cyanide (hydrocyanic acid)

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/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.

Advice for emergency responders:

Protective equipment 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.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Work under hood. Do not inhale substance/mixture.

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Store at +5°C to +30°C (+41°F to +86°F).

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SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Contains no substances with occupational exposure limit values.

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream.
Wash hands and face after working with substance.

Eye/face protection

Tightly fitting safety goggles

Hand protection

full contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm
Break through time: 480 min

splash contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm
Break through time: 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

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 and supplied by us as well as to the purpose specified by us. 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).

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles

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of harmful substances

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

SECTION 9. Physical and chemical properties

Physical state	crystalline
Color	white
Odor	odorless
Odor Threshold	Not applicable
pH	5.3 - 8.5 at 50 g/l 68 °F (20 °C)
Melting point	351 °F (177 °C) at 1,013 hPa Method: OECD Test Guideline 102
Boiling point/boiling range	> 752 °F (> 400 °C) at 1,013 hPa Method: OECD Test Guideline 103
Flash point	does not flash
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable. Flammability (solids)
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	< 0.001 hPa at 68 °F (20 °C) Method: OECD Test Guideline 104 low

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Relative vapor density	No information available.
Density	1.91 g/cm ³ at 68 °F (20 °C) Method: OECD Test Guideline 109
Relative density	No information available.
Water solubility	> 1,000 g/l at 68 °F (20 °C) Method: OECD Test Guideline 105
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	932 °F (500 °C)
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	The product has been shown not to be oxidizing in a test following Directive 67/548/EEC (Method A17, oxidizing properties).
Ignition temperature	not combustible
Bulk density	ca.750 - 1,000 kg/m ³
Particle size	Method: OECD Test Guideline 110 Not applicable
Corrosion	0.2 mm/a Method: Dangerous goods negligible

SECTION 10. Stability and reactivity

Reactivity

See below

Chemical stability

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

Possibility of hazardous reactions

Risk of explosion with:

perchloryl fluoride, Strong oxidizing agents

Generates dangerous gases or fumes in contact with:

Acids

Possible formation of:

Hydrogen cyanide (hydrocyanic acid)

Risk of ignition or formation of inflammable gases or vapors with:

Chlorites

Conditions to avoid

Strong heating (decomposition).

Incompatible materials

no information available

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Acute oral toxicity

LD50 Rat: 854 mg/kg (RTECS)

Acute inhalation toxicity

Acute toxicity estimate: 1.51 mg/l; dust/mist

Expert judgment

Symptoms: Possible damages:, mucosal irritations

Acute dermal toxicity

Acute toxicity estimate : 1,100.1 mg/kg

Expert judgment

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Skin irritation

In vitro study

Result: No skin irritation

OECD Test Guideline 439

The value is given in analogy to the following substances: sodium thiocyanate

Eye irritation

Rabbit

Result: Irreversible effects on the eye

OECD Test Guideline 405

The value is given in analogy to the following substances: sodium thiocyanate

Causes serious eye damage.

Sensitization

Local lymph node assay (LLNA) Mouse

Result: negative

Method: OECD Test Guideline 429

The value is given in analogy to the following substances: sodium thiocyanate

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

The value is given in analogy to the following substances: Ammonium thiocyanate

Mutagenicity (mammal cell test): chromosome aberration.

Human lymphocytes

Result: negative

Method: OECD Test Guideline 473

The value is given in analogy to the following substances: sodium thiocyanate

In vitro mammalian cell gene mutation test

MOUSE LYMPHOMA TEST

Result: negative

Method: OECD Test Guideline 476

The value is given in analogy to the following substances: sodium thiocyanate

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

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Carcinogenicity

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

After absorption of large quantities:
agitation, spasms, ataxia (impaired locomotor coordination)
Systemic effects:
CNS disorders, cardiovascular disorders
After long-term exposure to the chemical:
Changes in the blood count
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish

static test LC50 *Oncorhynchus mykiss* (rainbow trout): 65 mg/l; 96 h

Analytical monitoring: yes

OECD Test Guideline 203 The value is given in analogy to the following substances:

Ammonium thiocyanate

Toxicity to daphnia and other aquatic invertebrates

static test EC50 *Daphnia magna* (Water flea): 3.56 mg/l; 48 h

Analytical monitoring: yes

OECD Test Guideline 202 The value is given in analogy to the following substances:

Ammonium thiocyanate

Toxicity to algae

static test ErC50 *Pseudokirchneriella subcapitata* (green algae): > 234.3 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201 The value is given in analogy to the following substances:

Ammonium thiocyanate

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static test NOEC Pseudokirchneriella subcapitata (green algae): 106.5 mg/l; 72 h
Analytical monitoring: yes
OECD Test Guideline 201 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

Analytical monitoring: yes(ECHA)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
semi-static test NOEC Daphnia magna (Water flea): 1.25 mg/l; 21 d

Analytical monitoring: yes

OECD Test Guideline 211 The value is given in analogy to the following substances:
Ammonium thiocyanate

Persistence and degradability

Biodegradability
80 %; 28 d; aerobic
OECD Test Guideline 301D
The value is given in analogy to the following substances: Ammonium thiocyanate
Readily biodegradable.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

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Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

Canada

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Notification status

TSCA:	All components of the product are listed in the TSCA-inventory.
DSL:	All components of this product are on the Canadian DSL

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

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.
EUH032 Contact with acids liberates very toxic gas.

Precautionary Statements

Prevention

P273 Avoid release to the environment.
P280 Wear eye protection.

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Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

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

P313 Get medical advice/ attention.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 11/12/2019

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