

according to Regulation (EC) No. 1907/2006

POTASSIUM THIOCYANATE

Version 2

Revision Date 18.05.2016

Print Date 06.01.2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name: POTASSIUM THIOCYANATE

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

REACH Registration Number : 01-2119543697-26-xxxx

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

Use of the Substance/Mixture: Specific use(s): Use in synthesis and as intermediate. Use in spraying formulations. Building and construction work. Laboratory activities

Specific use(s): Refer to attached exposure scenario Annex.

Details of the supplier of the safety data sheet

Company:
A.M.P.E.R.E. INDUSTRIE
5/7 Rue de Bretagne
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Emergency telephone number

ORFILA - INRS (24/24): +33 (0)1 45 42 59 59 - UK : 0344 892 0111

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

Acute toxicity, 4, H302

Acute toxicity, 4, H332

Acute toxicity, 4, H312

Serious eye damage, 1, H318

Chronic aquatic toxicity, 3, H412

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

Label elements

Labelling (REGULATION (EC) No 1272/2008)

Pictogram :



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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.

Precautionary statements: Prevention:

P261: Avoid breathing dust or fume.
 P264: Wash skin thoroughly after handling.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/ eye protection/ face protection.

Response:

P305 + P351 + P338 + P310: if in eyes : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Disposal:

P501: Dispose of contents/container in accordance with local regulation.

Hazardous components which must be listed on the label: Thiocyanic acid, potassium salt 333-20-0

Additional Labelling: EUH032 Contact with acids liberates very toxic gas.

Other hazards

No further data available.

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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous substance

Chemical name	PBT vPvB OEL	CAS-No. EC-No. REACH No.	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Thiocyanic acid, potassium salt		333-20-0 206-370-1 01-2119543697-26	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Eye Dam. 1; H318 Aquatic Chronic 3; H412	90 - 100

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Status: Not applicable

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice: Immediate medical attention is required. Move out of dangerous area. Show this safety data sheet to the doctor in attendance.

If inhaled: Remove to fresh air. Keep patient warm and at rest. Rinse nose and mouth with water.

In case of skin contact: Take off contaminated clothing and shoes immediately. If skin irritation persists, call a physician.

In case of eye contact: Rinse with plenty of water. Get medical attention immediately. Continue to rinse during transport. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.

If swallowed: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Risks: Harmful if swallowed, in contact with skin or if inhaled. Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special hazards arising from the substance or mixture

Specific hazards during firefighting / Specific hazards arising from the chemical: : Do not allow run-off from fire fighting to enter drains or water courses. Heating may cause decomposition with release of toxic fumes.

Combustion products: Fire will produce smoke containing hazardous combustion products (see section 10).

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Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Environmental precautions

Environmental precautions: Try to prevent the material from entering drains or water courses. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Methods for cleaning up / Methods for containment: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

Additional advice: For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: For personal protection see section 8. Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep in a dry place. Store at room temperature in the original container. Keep container tightly closed.

Advice on common storage: Do not store near acids.

Other data: No decomposition if stored and applied as directed.

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Specific end use(s)

Specific use(s): Refer to attached exposure scenario Annex.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Thiocyanic acid, potassium salt	Workers	Inhalation	Long-term systemic effects	3,6 mg/m ³
	Workers	Skin contact	Long-term systemic effects	2 mg/kg bw /day
	Consumers	Inhalation	Long-term systemic effects	1,3 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	1,5 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0,36 mg/kg bw /day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Thiocyanic acid, potassium salt	Fresh w ater	0,095 mg/l
	Marine w ater	0,0095 mg/l
	Intermittent w ater	0,0272 mg/l
	Sew age treatment plant	30 mg/l
	Fresh w ater sediment	0,543 mg/kg dry w eight
	Marine sediment	0,0543 mg/kg dry w eight
	Soil	6,336 mg/kg dry w eight
	Secondary Poisoning	1,667 mg/kg food

Exposure controls

Engineering controls

Provide appropriate exhaust ventilation at places where dust is formed.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection: Half mask with a particle filter P2 (EN 143)

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Hand protection: For prolonged or repeated contact use protective gloves. Protective gloves complying with EN 374.

Eye protection: Tightly fitting safety goggles

Skin and body protection Hygiene measures: Protective suit Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Environmental exposure controls

General advice: Try to prevent the material from entering drains or water courses. If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form: Crystalline

Colour: White

Odour: Odourless

Odour Threshold: No data available

Safety data

pH: 5-7 at 5% solution (as aqueous solution)

Melting point: 177 °C

Boiling point/boiling range: Not relevant

Flash point: Not relevant

Evaporation rate: Not applicable

Flammability (solid, gas): Not flammable

Flammability (liquids): Not applicable

Lower explosion limit: Not applicable

Upper explosion limit: Not applicable

Vapour pressure: Not applicable

Relative vapour density: Not applicable

Relative density: 1,880

Bulk density: 700-800 kg/m³

Water solubility: 2 300 g/l at 20°C

Solubility in other solvents: No data available

Partition coefficient: n-octanol/water: log Pow: -2,52. Method: Calculation method

Auto-ignition temperature: Not applicable

Decomposition temperature: > 500 °C

Viscosity, dynamic : Not applicable

Viscosity, kinematic: Not applicable

Explosive properties: Not explosive

Oxidizing properties: Not relevant

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9.2. Other information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Contact with acids liberates very toxic gas. Decomposition products may be flammable.

Conditions to avoid

Conditions to avoid: None known

Incompatible materials

Materials to avoid: Incompatible with strong acids and oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products: Carbon disulphide, Carbon oxides, nitrogen oxides (NO_x), Carbonyl sulfide, Sulphur oxides
Thermal decomposition: >500 °C

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product information:

Acute toxicity: Harmful if swallowed, in contact with skin or if inhaled
Skin corrosion/irritation: Not classified based on available information.
Serious eye damage/eye irritation: Causes serious eye damage.
Respiratory or skin sensitisation : Respiratory sensitisation: Not classified based on available information. Skin sensitisation: Not classified based on available information.
Germ cell mutagenicity: Not classified based on available information.
Carcinogenicity: Not classified based on available information.
Reproductive toxicity: Not classified based on available information.
STOT - single exposure: Not classified based on available information.
STOT - repeated exposure: Not classified based on available information.
Aspiration hazard: Not classified based on available information.
Further information: No further data available.

Test result

Acute oral toxicity: Acute toxicity estimate: 655,56 mg/kg - Method: Calculation method
Acute inhalation toxicity: Acute toxicity estimate : 1,52 mg/l - Exposure time: 4 h - Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity: Acute toxicity estimate: 1 112 mg/kg - Method: Calculation method

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Toxicology data for the components:

Thiocyanic acid, potassium salt

Acute oral toxicity: LD50: 649 mg/kg - Species: Coturnix japonica (Japanese quail) - Method: OECD Test Guideline 401 - Read-across from supporting substance (structural analogue or surrogate).

Acute inhalation toxicity: No data available

Acute dermal toxicity: LD50: > 2 000 mg/kg - Species: Rat - Method: OECD Test Guideline 402

Skin corrosion/irritation: Result: No skin irritation

Serious eye damage/eye irritation: Species: Rabbit - Result: Risk of serious damage to eyes. Read-across (Analogy)

Respiratory or skin sensitisation: Species: Mouse - Classification: Does not cause skin sensitisation. Method: OECD Test Guideline 429

Repeated dose toxicity: Species: Rat - Application Route: Oral NOEL: 25,5 mg/kg - Read-across (Analogy)

Germ cell mutagenicity

Genotoxicity in vitro : In vitro gene mutation study in mammalian cells mouse lymphoma cells. Result: negative Method: OECD Test Guideline 476 - Read-across from supporting substance (structural analogue or surrogate).

Ames test - Result: negative - Method: OECD Test Guideline 471 - Read-across from supporting substance (structural analogue or surrogate). Chromosome aberration test in vitro Human lymphocytes Result: negative Method: OECD Test Guideline 473 - Read-across from supporting substance (structural analogue or surrogate).

Genotoxicity in vivo: Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity: study scientifically unjustified

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

STOT - single exposure: Not classified due to data which are conclusive although insufficient for classification.

STOT - repeated exposure: Not classified due to data which are conclusive although insufficient for classification.

Aspiration hazard: repeated exposure: Not classified due to data which are conclusive although insufficient for classification.

SECTION 12: ECOLOGICAL INFORMATION

Product information: Ecotoxicology Assessment Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Toxicity

Components:
Test result

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Thiocyanic acid, potassium salt

Toxicity to fish: LC50: 83 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: static test
Method: OECD Test Guideline 203
Read-across from supporting substance (structural analogue or surrogate).

Toxicity to daphnia and other aquatic invertebrates: EC50: 4,54 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test Type: static test
Method: OECD Test Guideline 202
Read-across from supporting substance (structural analogue or surrogate).

Toxicity to algae: EC10: 136 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae) Test Type: Growth inhibition
Method: OECD Test Guideline 201
Read-across from supporting substance (structural analogue or surrogate).
ErC50: > 310,6 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae) Test Type: Growth inhibition
Method: OECD Test Guideline 201
Read-across from supporting substance (structural analogue or surrogate).

Toxicity to bacteria: NOEC: 2,55 mg/l
Exposure time: 28 d
Test Type: static test
Method: closed serum bottle
Read-across from supporting substance (structural analogue or surrogate).
NOEC: 30 mg/l
Exposure time: 12 h
Test Type: static test

Toxicity to fish (Chronic toxicity): NOEC: 1,84 mg/l - Exposure time: 124 d - Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 1,60 mg/l - Exposure time: 21 d reproduction rate - Species: Daphnia magna (Water flea) - Method: OECD Test Guideline 211 - Read-across from supporting substance (structural analogue or surrogate).

Persistence and degradability

Product information:

Biodegradability: Result: Readily biodegradable

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Persistence and degradability

Product information:

Biodegradability: Result: Readily biodegradable

Components: Thiocyanic acid, potassium salt :

Biodegradability: Result: Readily biodegradable. Method: Closed Bottle test

Bioaccumulative potential

Product information: Bioaccumulation: Not expected considering the low log Pow value.

Components:

Thiocyanic acid, potassium salt : Bioaccumulation: Not expected considering the low log Pow value.

Mobility in soil

Product information: Mobility: No data available

Components: No information available.

Results of PBT and vPvB assessment

Product information: 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.

Components: Thiocyanic acid, potassium salt:

PBT and vPvB assessment: This substance is not considered to be a PBT (Persistent, Bioaccumulation, Toxic)

This substance is not considered to be vPvB (very Persistent nor very Bioaccumulating)

Other adverse effects

Product information: Biochemical Oxygen: Demand (BOD): No data available.

Components: Thiocyanic acid, potassium salt: Biochemical Oxygen Demand (BOD): No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: The product should not be allowed to enter drains, water courses or the soil.

Do not contaminate ponds, waterways or ditches with chemical or used container. Hazardous waste
Dispose of contents/container in accordance with local regulation.

Contaminated packaging: Empty remaining contents. Dispose of as unused product.

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SECTION 14: TRANSPORT INFORMATION

UN number

Not regulated as a dangerous good

Proper shipping name

Not regulated as a dangerous good

Transport hazard class

Not regulated as a dangerous good

Packing group

Not regulated as a dangerous good

Environmental hazards

Not regulated as a dangerous good

Special precautions for user

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: REGULATORY INFORMATION

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

Major Accident Hazard Legislation: Seveso Directive - 2012/18/EU Not applicable

Water contaminating class (Germany): WGK 1 slightly water endangering

Occupational Illnesses (R-461-3, France): Not applicable

Notification status

TSCA: YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

DSL: YES. All components of this product are on the Canadian DSL

AICS: YES. On the inventory, or in compliance with the inventory

NZIoC: YES. On the inventory, or in compliance with the inventory

ENCS: YES. On the inventory, or in compliance with the inventory

ISHL: YES. On the inventory, or in compliance with the inventory

KECI: YES. On the inventory, or in compliance with the inventory

PICCS: YES. On the inventory, or in compliance with the inventory

IECSC: YES. On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

Further information

This product is to be considered as a substance according to EU-legislation.

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Chemical safety assessment

Thiocyanic acid, potassium salt: A Chemical Safety Assessment has been carried out for this substance.

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.

H412: Harmful to aquatic life with long lasting effects.

Classification procedure:

Acute toxicity, 4, H302, Calculation method

Acute toxicity, 4, H332, Calculation method

Acute toxicity, 4, H312, Calculation method

Serious eye damage, 1, H318, Calculation method

Chronic aquatic toxicity, 3, H412, Calculation method

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative