

## SAFETY DATA SHEET

Version 8.5  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Potassium thiocyanate EMPLURA®  
Product Number : 1.05124  
Catalogue No. : 105124  
Brand : Millipore  
Index-No. : 615-030-00-5  
CAS-No. : 333-20-0

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

Identified uses : Materials for use in technical applications

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

Company : EMD Millipore Corporation  
400 Summit Drive  
BURLINGTON MA 01803  
UNITED STATES

Telephone : +1 800-645-5476

**1.4 Emergency telephone**

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312  
Serious eye damage (Category 1), H318  
Short-term (acute) aquatic hazard (Category 2), H401  
Long-term (chronic) aquatic hazard (Category 3), H412

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

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Danger

Hazard statement(s)	
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H318	Causes serious eye damage.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
Precautionary statement(s)	
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.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 + P312	IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
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.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/ container to an approved waste disposal plant.

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none**

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**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Formula	:	KSCN
Molecular weight	:	97.18 g/mol
CAS-No.	:	333-20-0
EC-No.	:	206-370-1
Index-No.	:	615-030-00-5

Component	Classification	Concentration
<b>Potassium thiocyanate</b>	Acute Tox. 4; Eye Dam. 1; Aquatic Acute 2; Aquatic Chronic 3; H302, H332, H312, H318, H401, H412	<= 100 %

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

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**SECTION 4: First aid measures**

**4.1 Description of first-aid measures**

No data available

#### **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

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

No data available

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

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Sulfur oxides

Potassium oxides

Not combustible.

Fire may cause evolution of:

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

#### **5.3 Advice for firefighters**

No data available

#### **5.4 Further information**

No data available

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### **SECTION 6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

For personal protection see section 8.

#### **6.2 Environmental precautions**

No data available

#### **6.3 Methods and materials for containment and cleaning up**

No data available

#### **6.4 Reference to other sections**

For disposal see section 13.

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### **SECTION 7: Handling and storage**

#### **7.1 Precautions for safe handling**

For precautions see section 2.2.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Recommended storage temperature see product label.

##### **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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Personal protective equipment

##### 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](http://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](http://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

##### Control of environmental exposure

Prevent product from entering drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |  |   |
|--|---|
| a) Appearance                              | Form: crystalline<br>Color: white   |
| b) Odor                                    | odorless  |
| c) Odor Threshold                          | Not applicable  |
| d) pH                                      | 4.8 at 1,070 g/l at 20.1 °C (68.2 °F)5.3 - 8.7 at 97.2 g/l at 25 °C (77 °F) |
| e) Melting point/freezing point            | Melting point/range: 173 °C (343 °F)  |
| f) Initial boiling point and boiling range | <= 400 °C <= 752 °F at 1,013 hPa - OECD Test Guideline 103                  |
| g) Flash point                             | ( )Not applicable   |

h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	< 0.1 hPa at 20 °C (68 °F) - OECD Test Guideline 104
l)	Vapor density	No data available
m)	Density	1.890 g/cm <sup>3</sup> at 20 °C (68 °F)
	Relative density	1.9120 °C - OECD Test Guideline 109
n)	Water solubility	1,000 g/l at 20 °C (68 °F) - OECD Test Guideline 105 - completely soluble
o)	Partition coefficient: n-octanol/water	- Not applicable for inorganic substances
p)	Autoignition temperature	not auto-flammable
q)	Decomposition temperature	500 °C (932 °F) -
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	The product has been shown not to be oxidizing in a test following Directive 67/548/EEC (Method A17, oxidizing properties).

## 9.2 Other safety information

Bulk density	ca.750 - 1,000 kg/m <sup>3</sup>
Particle size	- OECD Test Guideline 110Not applicable

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Contact with acids liberates very toxic gas.

### 10.2 Chemical stability

No data available

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Avoid moisture.

### 10.5 Incompatible materials

acids, Strong bases, Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 854 mg/kg

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Lungs, Thorax, or Respiration:Dyspnea.

(RTECS)

Acute toxicity estimate Inhalation - 1.6 mg/l - dust/mist

(Expert judgment)

Symptoms: Possible damages:, May cause irritation of respiratory tract.

Inhalation: No data available

LD50 Dermal - Rat - male and female - > 2,000 mg/kg

(OECD Test Guideline 402)

No data available

#### Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation - 5 min

(Regulation (EC) No. 440/2008, Annex, B.46)

Remarks: (in analogy to similar products)

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

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irreversible effects on the eye

(OECD Test Guideline 405)

Remarks: (in analogy to similar products)

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

#### 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: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Remarks: (in analogy to similar products)

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

Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Remarks: (in analogy to similar products)

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

Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Remarks: (in analogy to similar products)

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

### **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.

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.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

### **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

## **11.2 Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 92 d - NOAEL (No observed adverse effect level) - 20 mg/kg

Remarks: (in analogy to similar products)

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

Nausea, Headache, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

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.

Stomach - Irregularities - Based on Human Evidence

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## 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) Remarks: (in analogy to similar products) 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 (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Ammonium thiocyanate
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata - > 234.3 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Ammonium thiocyanate
Toxicity to bacteria	static test NOEC - activated sludge - $\geq$ 2 mg/l - 28 d (OECD Test Guideline 301D) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Ammonium thiocyanate The value is given in analogy to the following substances: Potassium thiocyanate

### 12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 28 d Result: 80 % - Readily biodegradable. (OECD Test Guideline 301D) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Ammonium thiocyanate
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### 12.3 Bioaccumulative potential

Bioaccumulation	Oncorhynchus mykiss (rainbow trout) - 16 Weeks - 35000 µg/l(Potassium thiocyanate)
	Bioconcentration factor (BCF): 13.4

### 12.4 Mobility in soil

No data available



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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### **12.6 Endocrine disrupting properties**

No data available

### **12.7 Other adverse effects**

No data available

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## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

No data available

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## **SECTION 14: Transport information**

### **DOT (US)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

Not dangerous goods

### **Further information**

Not classified as dangerous in the meaning of transport regulations.

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## **SECTION 15: Regulatory information**

### **SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

### **SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

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## **SECTION 16: Other information**

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

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