

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 13.09.2018

Version 8.11

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## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Catalogue No. 108092

Product name Potassium antimony(III) oxide tartrate trihydrate EMPLURA®

REACH Registration Number A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. 28300-74-5

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

Identified uses Materials for use in technical applications  
For additional information on uses please refer to the Merck Chemicals portal ([www.merckgroup.com](http://www.merckgroup.com)).

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

Company Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0

Responsible Department LS-QHC \* e-mail: [prodsafe@merckgroup.com](mailto:prodsafe@merckgroup.com)

1.4 Emergency telephone number Please contact the regional company representation in your country.

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## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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Acute toxicity, Category 4, Oral, H302

Acute toxicity, Category 4, Inhalation, H332

Chronic aquatic toxicity, Category 2, H411

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

## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

#### *Hazard pictograms*



#### *Signal word*

Warning

#### *Hazard statements*

H302 + H332 Harmful if swallowed or if inhaled.

H411 Toxic to aquatic life with long lasting effects.

#### *Precautionary statements*

Prevention

P273 Avoid release to the environment.

The concentration stated or, in the absence of such concentrations, the generic concentrations set out in this Regulation are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.

#### **Reduced labelling (≤125 ml)**

##### *Hazard pictograms*



##### *Signal word*

Warning

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*Index-No.* 051-003-00-9

## 2.3 Other hazards

None known.

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## SECTION 3. Composition/information on ingredients

### 3.1 Substance

Formula	$K_2(SbO)_2C_8H_4O_{10} \cdot 3 H_2O$	$C_8H_4K_2O_{12}Sb_2 \cdot 3 H_2O$ (Hill)
Index-No.	051-003-00-9	
EC-No.	234-293-3	
Molar mass	667,89 g/mol	

### Hazardous components (REGULATION (EC) No 1272/2008)

*Chemical name (Concentration)*

CAS-No.	Registration number	Classification
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Potassium antimony(III) oxide tartrate trihydrate (<= 100 % )

*The concentration stated or, in the absence of such concentrations, the generic concentrations set out in this Regulation are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.*

28300-74-5 \*)

Acute toxicity, Category 4, H302

Acute toxicity, Category 4, H332

Chronic aquatic toxicity, Category 2, H411

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

### 3.2 Mixture

Not applicable

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## SECTION 4. First aid measures

### 4.1 Description of first aid measures

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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: Take off immediately all contaminated clothing. Rinse skin with water/shower.

After eye contact: rinse out with plenty of water. Remove contact lenses.

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

## 4.2 Most important symptoms and effects, both acute and delayed

irritant effects, Cough, Shortness of breath, Dermatitis, Cyanosis, pain, Dizziness, agitation, bloody diarrhoea, Vomiting, Headache, paralysis symptoms, Coma, death

The following applies to trivalent antimony compounds in general: after uptake and absorption as a result of misuse or improper handling, drop in blood pressure, hepatotoxic effect, in some circumstances myalgia, dyspnoea, dermatitis.

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

No information available.

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## SECTION 5. Firefighting measures

### 5.1 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.

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

Not combustible.

Ambient fire may liberate hazardous vapours.

### 5.3 Advice for firefighters

#### *Special protective equipment for firefighters*

In the event of fire, wear self-contained breathing apparatus.

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## *Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6. Accidental release measures**

### **6.1 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.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 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.

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

Indications about waste treatment see section 13.

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## **SECTION 7. Handling and storage**

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

#### *Advice on safe handling*

Observe label precautions.

Work under hood. Do not inhale substance/mixture.

#### *Hygiene measures*

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

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

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## *Storage conditions*

Tightly closed. Dry.

Recommended storage temperature see product label.

## **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**

### **8.2 Exposure controls**

#### **Engineering measures**

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

See section 7.1.

#### **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### *Eye/face protection*

Safety glasses

#### *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

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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<(>,<)> 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)).

#### *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 of harmful substances

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.

#### **Environmental exposure controls**

Do not let product enter drains.

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## **SECTION 9. Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

Form	solid
Colour	white
Odour	odourless
Odour Threshold	Not applicable

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pH	ca. 4,0 at 50 g/l 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	2,6 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	83 g/l at 20 °C
Partition coefficient: n-octanol/water	log Pow: -8,32 (calculated) (anhydrous substance) Bioaccumulation is not expected.



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Auto-ignition temperature	No information available.
Decomposition temperature	> 100 °C Elimination of water of crystallisation
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

Ignition temperature	Not applicable
Bulk density	ca. 1.250 kg/m <sup>3</sup>

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## SECTION 10. Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

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

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

no information available

### 10.6 Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### *Acute oral toxicity*

LDLO human: 2 mg/kg

(RTECS) (Regulation (EC) No 1272/2008, Annex VI)

Symptoms: pain in:, mouth, oesophagus, Gastrointestinal tract

#### *Acute inhalation toxicity*

Acute toxicity estimate: 1,6 mg/l; dust/mist

Expert judgement

#### *Acute dermal toxicity*

This information is not available.

#### *Skin irritation*

Possible damages: slight irritation Dermatitis

#### *Eye irritation*

Possible damages: slight irritation

#### *Sensitisation*

This information is not available.

#### *Germ cell mutagenicity*

#### *Genotoxicity in vitro*

Ames test

Salmonella typhimurium

Result: negative

(National Toxicology Program)

#### *Carcinogenicity*

This information is not available.

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## *Reproductive toxicity*

This information is not available.

## *Teratogenicity*

This information is not available.

## *Specific target organ toxicity - single exposure*

This information is not available.

## *Specific target organ toxicity - repeated exposure*

This information is not available.

## *Aspiration hazard*

This information is not available.

## 11.2 Further information

Systemic effects:

Intoxication symptoms:

Vomiting, bloody diarrhoea, Cyanosis, Headache, agitation, Dizziness, drop in blood pressure, pain, paralysis symptoms, Coma, death

The following applies to trivalent antimony compounds in general: after uptake and absorption as a result of misuse or improper handling, drop in blood pressure, hepatotoxic effect, in some circumstances myalgia, dyspnoea, dermatitis.

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

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## SECTION 12. Ecological information

### 12.1 Toxicity

#### *Toxicity to fish*

LC50 *Oncorhynchus mykiss* (rainbow trout): 37 mg/l; 96 h  
(ECOTOX Database)

#### *Toxicity to daphnia and other aquatic invertebrates*

EC50 *Daphnia magna* (Water flea): 5 mg/l; 48 h  
(ECOTOX Database)

### 12.2 Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

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*Partition coefficient: n-octanol/water*

log Pow: -8,32

(calculated)

(anhydrous substance) Bioaccumulation is not expected.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

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

## 12.6 Other adverse effects

Discharge into the environment must be avoided.

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## SECTION 13. Disposal considerations

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14. Transport information

### Land transport (ADR/RID)

14.1 UN number UN 1551

14.2 Proper shipping name ANTIMONY POTASSIUM TARTRATE

14.3 Class 6.1

14.4 Packing group III

14.5 Environmentally hazardous yes

14.6 Special precautions for user yes

Tunnel restriction code E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

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14.1 UN number	UN 1551
14.2 Proper shipping name	ANTIMONY POTASSIUM TARTRATE
14.3 Class	6.1
14.4 Packing group	III
14.5 Environmentally hazardous	yes
14.6 Special precautions for user	no

## Sea transport (IMDG)

14.1 UN number	UN 1551
14.2 Proper shipping name	ANTIMONY POTASSIUM TARTRATE
14.3 Class	6.1
14.4 Packing group	III
14.5 Environmentally hazardous	yes
14.6 Special precautions for user	yes

EmS	F-A S-A
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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
Not relevant

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## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard	SEVESO III
Legislation	ENVIRONMENTAL HAZARDS E2 Quantity 1: 200 t Quantity 2: 500 t

Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.
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Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

## National legislation

Storage class 10 - 13

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

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## SECTION 16. Other information

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

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

### Training advice

Provide adequate information, instruction and training for operators.

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## Labelling

*Hazard pictograms*



*Signal word*

Warning

*Hazard statements*

H302 + H332 Harmful if swallowed or if inhaled.

H411 Toxic to aquatic life with long lasting effects.

*Precautionary statements*

Prevention

P273 Avoid release to the environment.

## 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](http://www.wikipedia.org).

## Regional representation

This information is given on the authorised Safety Data Sheet for your country.

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*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*