

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 27.11.2024

Version number 3.00 (replaces version 2.00)

Revision: 27.11.2024

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

- **Product identifier**
- **Trade name: (+)-tartaric acid**
- **Article number:** 2046
- **CAS Number:**  
87-69-4
- **EC number:**  
201-766-0
- **Registration number** The substance is exempt from REACH-registration.
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Ingredient for pharmaceutical drugs
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
CAELO  
Caesar & Loretz GmbH  
Herderstr. 31  
D-40721 Hilden  
GERMANY
- **Further information obtainable from:**  
E-mail: [info@caelo.de](mailto:info@caelo.de)  
Tel.: +49210349940 (during regular opening hours)
- **Emergency telephone number:**  
Poison Information Center Bonn  
Venusberg-Campus 1, 53127 Bonn  
Tel: +49 (0) 228-192400

### 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard statements**  
H318 Causes serious eye damage.

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**· Precautionary statements**

P280 Wear eye protection / face protection.

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.

**· Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**· Determination of endocrine-disrupting properties** Not applicable.

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### 3 Composition/information on ingredients

**· Substances****· CAS No. Description**

CAS: 87-69-4 (+)-tartaric acid

**· Identification number(s)****· EC number:** 201-766-0

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### 4 First aid measures

**· Description of first aid measures****· After inhalation:** Supply fresh air; consult doctor in case of complaints.**· After skin contact:** Generally the product does not irritate the skin.**· After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**· After swallowing:** Call a doctor immediately.**· Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**· Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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### 5 Firefighting measures

**· Extinguishing media****· Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

**· Special hazards arising from the substance or mixture**

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)**· Advice for firefighters****· Protective equipment:** Wear fully protective suit.**· Additional information** Cool endangered receptacles with water spray.

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### 6 Accidental release measures

**· Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

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Use personal protective equipment. Avoid breathing vapors, mist or gas.

**· Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow product to reach sewage system or any water course.

Do not allow to enter sewers/ surface or ground water.

**· Methods and material for containment and cleaning up:**

Pick up mechanically.

Dispose contaminated material as waste according to section 13.

**· Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## 7 Handling and storage

**· Precautions for safe handling**

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

**· Information about fire - and explosion protection:** No special measures required.**· Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles:**

Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C).

**· Information about storage in one common storage facility:** Not required.**· Further information about storage conditions:** No further information**· Storage class:** TRHS 510: 11 Combustible solids**· Specific end use(s)** No further relevant information available.

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## 8 Exposure controls/personal protection

**· Control parameters****· Ingredients with limit values that require monitoring at the workplace:** Not required.**· Exposure controls****· Appropriate engineering controls** No further data; see section 7.**· Individual protection measures, such as personal protective equipment****· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**· Respiratory protection:** Dust protection mask.**· Hand protection** Protective gloves**· Material of gloves**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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PVC or PE gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**· Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**· Eye/face protection** Tightly sealed goggles**· Body protection:**

Choose a type of body protection according to the amount and concentration of hazardous substances to the workplace.

## 9 Physical and chemical properties

**· Information on basic physical and chemical properties****· General Information****· Physical state**

Solid

**· Colour:**

White

**· Odour:**

Odourless

**· Odour threshold:**

Not determined.

**· Melting point/freezing point:**

166–169 °C

**· Boiling point or initial boiling point and boiling range**

179.1 °C

**· Flammability**

Product is not flammable.

**· Lower and upper explosion limit****· Lower:**

Not determined.

**· Upper:**

Not determined.

**· Flash point:**

Not applicable.

**· Decomposition temperature:**

Not determined.

**· pH**

Not applicable.

**· Viscosity:****· Kinematic viscosity**

Not applicable.

**· Dynamic:**

Not applicable.

**· Solubility****· water at 20 °C:**

1390 g/l

**· Partition coefficient n-octanol/water (log value)**

Not determined.

**· Vapour pressure:**

Not applicable.

**· Density and/or relative density****· Density at 20 °C:**1.76 g/cm<sup>3</sup>**· Relative density**

Not determined.

**· Vapour density**

Not applicable.

**· Particle characteristics**

Not determined

**· Other information****· Appearance:****· Form:**

Crystalline powder

**· Important information on protection of health and environment, and on safety.****· Explosive properties:**

Product does not present an explosion hazard.

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· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not applicable.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
	Void
· <b>Flammable gases</b>	Void
	Void
· <b>Aerosols</b>	Void
	Void
· <b>Oxidising gases</b>	Void
	Void
· <b>Gases under pressure</b>	Void
	Void
· <b>Flammable liquids</b>	Void
	Void
· <b>Flammable solids</b>	Void
	Void
· <b>Self-reactive substances and mixtures</b>	Void
	Void
· <b>Pyrophoric liquids</b>	Void
	Void
· <b>Pyrophoric solids</b>	Void
	Void
· <b>Self-heating substances and mixtures</b>	Void
	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
	Void
· <b>Oxidising liquids</b>	Void
	Void
· <b>Oxidising solids</b>	Void
	Void
· <b>Organic peroxides</b>	Void
	Void
· <b>Corrosive to metals</b>	Void
	Void
· <b>Desensitised explosives</b>	Void
	Void

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### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**  
Reacts with metals.

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Reacts with strong oxidising agents.

· **Conditions to avoid** No further relevant information available.· **Incompatible materials:**

Metals

Strong oxidizing agents

· **Hazardous decomposition products:** Carbon monoxide

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### 11 Toxicological information

· **Information on hazard classes as defined in Regulation (EC) No 1272/2008**· **Acute toxicity** Based on available data, the classification criteria are not met.· **LD/LC50 values relevant for classification:**

Oral LD50 7,500 mg/kg (rat)

Dermal LD50 2,000 mg/kg (rat)

· **Primary irritant effect:**· **Skin corrosion/irritation**

May cause skin irritation.

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

· **Serious eye damage/irritation** Causes serious eye damage.· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.· **Carcinogenicity** Based on available data, the classification criteria are not met.· **Reproductive toxicity** Based on available data, the classification criteria are not met.· **STOT-single exposure** Based on available data, the classification criteria are not met.· **STOT-repeated exposure** Based on available data, the classification criteria are not met.· **Aspiration hazard** Based on available data, the classification criteria are not met.· **Information on other hazards**· **Endocrine disrupting properties**

On the basis of the available data, the substance does not meet the criteria for the identification of substances having properties of interference with the endocrine system, in accordance with Article 59, paragraph 1 of the REACH Regulation and the criteria established in the Delegated Regulation (EU) 2017 / 2100 of the Commission or in Commission Regulation (EU) 2018/605.

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### 12 Ecological information

· **Toxicity**· **Aquatic toxicity:**LC50 100 mg/L (fish: *Carassius auratus*)EC50 >93.3 mg/L (*Daphnia magna*)

1,000 mg/L (Microorganism)

· **Persistence and degradability** Easily biodegradable· **Bioaccumulative potential** No further relevant information available.· **Mobility in soil** No further relevant information available.· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

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**· Endocrine disrupting properties**

Based on the available data, the substance does not meet the criteria for the identification of substances with properties affecting the endocrine system according to Article 59(1) of the REACH Regulation and the criteria of the Commission Delegated Regulation (EU) 2017/2100 or in the Commission Regulation (EU) 2018/605.

The product does not contain substances with endocrine disrupting properties.

**· Other adverse effects****· Additional ecological information:****· General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

### 13 Disposal considerations

**· Waste treatment methods****· Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**· Uncleaned packaging:**

**· Recommendation:** Disposal must be made according to local regulations.

### \* 14 Transport information

· UN number or ID number	Not subject to transport regulations.
· ADR, IMDG, IATA	not regulated
· UN proper shipping name	
· ADR	not regulated
· IMDG, IATA	not regulated
· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· ADR, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	not regulated

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Named dangerous substances - ANNEX I Substance is not listed.
- LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV) Not listed
- REGULATION (EC) No 1907/2006 ANNEX XVII Not listed

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- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
  - **National regulations:**
  - **Storage of hazardous substances in in nonstationary vessels (TRGS 510) (Germany)**  
TRHS 510: 11 Combustible solids
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
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### 16 Other information

The information provided is based on our current level of knowledge. This MSDS has been compiled and is exclusively for this product intended.

- **Reasons for alterations** This version replaces all old versions.
  - **Date of previous version:** 27.11.2024
  - **Version number of previous version:** 2.00
  - **Abbreviations and acronyms:**  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  - **\* Data compared to the previous version altered.**
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