

AnalytiChem GmbH

according to Regulation (EC) No 1907/2006

L(+)-Tartaric acid for analysis, ACS

Revision date: 26.06.2023

Product code: 06225

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

L(+)-Tartaric acid for analysis, ACS

| REACH Registration Number: | 01-2119537204-47-XXXX |
|----------------------------|-----------------------|
| CAS No: | 87-69-4 |
| EC No: | 201-766-0 |

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

Use of the substance/mixture

Laboratory chemical

Industrial uses: Uses of substances as such or in preparations at industrial sites Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

| Company name: | AnalytiChem GmbH | |
|--|-----------------------------------|---|
| Street: | Stempelstraße 6 | |
| Place: | D-47167 Duisburg | |
| Telephone: | 0203/5194-0 | Telefax: 0203/5194-290 |
| E-mail: | info@analytichem.de | |
| Contact person: | Abteilung Produktsicherheit | Telephone:0203/5194-107/117 |
| E-mail: | produktsicherheit@analytichem.de | |
| Internet: | www.analytichem.de | |
| Responsible Department: | Abteilung Produktsicherheit | |
| <u>1.4. Emergency telephone</u> number: | Exposure, or Accident Call CHEMTR | bus Goods] Incidents Spill, Leak, Fire, REC Day or Night Within USA and Canada: anada: +1 703-741-5970 (collect calls |

Further Information

No data available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008 Eve Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

H318

P280

Causes serious eye damage.

Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.



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| L(+)-Tartaric acid for analysis, ACS | | | | | | | |
|--------------------------------------|--|--------------|--|--|--|--|--|
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| 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. | | | | | | |
| 2.3. Other hazards | | | | | | | |

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

| Sum formula: | C4H6O6 |
|-------------------|--------------|
| Molecular weight: | 150,08 g/mol |

Hazardous components

| CAS No | Chemical name | | | Quantity |
|---------|---|--|--|----------|
| | EC No Index No REACH No | | | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 87-69-4 | (+)-tartaric acid | | | 100 % |
| | 201-766-0 01-2119537204-47-XXXX | | | |
| | Eye Dam. 1; H318 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity | |
|--|--|-------------------|----------|--|
| | Specific Conc. Limits, M-factors and ATE | | | |
| 87-69-4 | 201-766-0 | (+)-tartaric acid | 100 % | |
| dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg | | | | |

Further Information

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 = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air. Call a doctor if you feel unwell.

After contact with skin

Wash immediately with: Water Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Irritant

Gastrointestinal complaints

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



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No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible solids

Hazardous combustion products

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Danger of dust explosion.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Remove persons to safety. Emergency procedures Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Collect in closed and suitable containers for disposal. Take up carefully when dry. Take up dust-free and set down dust-free.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapours/spray. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage



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7.1. Precautions for safe handling

Advice on safe handling

Avoid dust formation. Do not breathe dust.

Advice on protection against fire and explosion

Danger of dust explosion.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Wash hands and face before breaks and after work and take a shower if necessary. Take off immediately all contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Further information on storage conditions

Store in a dry place.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

| CAS No | Substance | | | | | |
|--------------|---|----------------|----------|------------------|--|--|
| DNEL type | | Exposure route | Effect | Value | | |
| 87-69-4 | (+)-tartaric acid | | - | | | |
| Worker DNEL, | long-term | inhalation | systemic | 5,2 mg/m³ | | |
| Worker DNEL, | ., long-term dermal systemic 2,9 mg/kg bw/day | | | | | |
| Consumer DNE | EL, long-term | inhalation | systemic | 1,3 mg/m³ | | |
| Consumer DNE | EL, long-term | dermal | systemic | 1,5 mg/kg bw/day | | |
| Consumer DNE | EL, long-term | oral | systemic | 8,1 mg/kg bw/day | | |

PNEC values

| CAS No | Substance | | | | | |
|---------------------------------|---|------------|--|--|--|--|
| Environmental compartment Value | | | | | | |
| 87-69-4 | (+)-tartaric acid | | | | | |
| Freshwater | | 0,312 mg/l | | | | |
| Freshwater (i | Freshwater (intermittent releases) 0,514 mg/l | | | | | |
| Marine water | arine water 0,312 mg/l | | | | | |
| Freshwater sediment 1,141 mg/kg | | | | | | |
| Marine sediment 1,141 mg/kg | | | | | | |
| Micro-organis | 10 mg/l | | | | | |
| Soil | 0,045 mg/kg | | | | | |

8.2. Exposure controls



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Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact Trade name/designation: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact Trade name/designation: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11 mm Wearing time with occasional contact (splashes): > 480 min

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).

Skin protection

Wear suitable protective clothing. Material, acid-resistant

Respiratory protection

Respiratory protection necessary at: dust formation Filtering device with filter or ventilator filtering device of type: P2

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state: | solid |
|------------------|-------------------|
| Colour: | light beige |
| Odour threshold: | No data available |
| | |

Melting point/freezing point: Boiling point or initial boiling point and boiling range: Flammability: Lower explosion limits: **Test method** 168-170 °C No data available

No data available No data available



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| Upper explosion limits: | No data available | |
| Flash point: | 210 °C | |
| Auto-ignition temperature: | No data available | |
| Decomposition temperature: | >170 °C | |
| pH-Value (at 25 °C): | 1,6 (100 g/l) | |
| Viscosity / kinematic: | No data available | |
| Water solubility: | 1390 g/L | |
| (at 20 °C) | | |
| Solubility in other solvents | | |
| No data available | | |
| Dissolution rate: | No data available | |
| Partition coefficient n-octanol/water: | log Pow: 0,012 | |
| Dispersion stability: | No data available | |
| Vapour pressure: | <5 hPa | |
| (at 20 °C) | | |
| Vapour pressure: | <5 hPa | |
| (at 50 °C) | 1.70 | |
| Density (at 20 °C): | 1,76 g/cm³ No data available | |
| Relative density: Bulk density: | No data available No data available | |
| Relative vapour density: | No data available | |
| Particle characteristics: | No data available | |
| 9.2. Other information | | |
| Information with regard to physical hazard classes | | |
| Explosive properties | • | |
| Danger of dust explosion. | | |
| Sustaining combustion: | No data available | |
| Self-ignition temperature | | 375°C |
| Solid: | No data available | |
| Gas: | No data available | |
| Oxidizing properties | | |
| Not oxidising. | | |
| Other safety characteristics | | |
| Evaporation rate: | No data available | |
| Solvent separation test: | No data available | |
| Solvent content: | No data available | |
| Solid content: | 100% | |
| Sublimation point: | No data available | |
| Softening point: | No data available | |
| Pour point: | No data available | |
| No data available: | | |
| Viscosity / dynamic: | No data available | |
| Flow time: | No data available | |
| Further Information | | |
| No data available | | |
| SECTION 10: Stability and reactivity | | |

SECTION 10: Stability and reactivity

10.1. Reactivity

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air. Danger of dust explosion.



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10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Oxidising agent, strong Hydrogen peroxide silver Alkali (lye) Fluorine

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

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

| CAS No | Chemical name | | | | | | |
|---------|-------------------|---------------|--------|---------|---------------------|----------------------|--|
| | Exposure route | Dose | | Species | Source | Method | |
| 87-69-4 | (+)-tartaric acid | | | | | | |
| | oral | LD50 mg/kg | > 2000 | Rat | N/A (2010) | data sharing dispute | |
| | dermal | LD50 mg/kg | > 2000 | Rat | Study report (2010) | OECD Guideline 402 | |

Irritation and corrosivity

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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 likely routes of exposure

No data available



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Specific effects in experiment on an animal

No data available

Additional information on tests No data available

Practical experience No data available

11.2. Information on other hazards

Endocrine disrupting properties No data available

Other information

Irritant

Gastrointestinal complaints

Further information

No data available

SECTION 12: Ecological information

12.1. Toxicity

| CAS No | Chemical name | | | | | | |
|---------|--------------------------|----------------|--------|-----------|--|------------------------|-----------------------|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method |
| 87-69-4 | (+)-tartaric acid | | | | | | |
| | Acute fish toxicity | LC50 mg/l | > 100 | 96 h | Danio rerio | Study report (2010) | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | 51,404 | | Pseudokirchneriella subcapitata | Study report (2010) | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | 93,313 | 48 h | Daphnia magna | Study report (2010) | OECD Guideline 202 |
| | Acute bacteria toxicity | (EC50 mg/l) | > 1000 | | Nature of inoculum: activated sludge, domestic, no | Study report (2010) | OECD Guideline 209 |

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|-------------------|---------|
| 87-69-4 | (+)-tartaric acid | 0,012 |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

No data available

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

No data available

12.7. Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.



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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Send to a physico-chemical treatment facility under observation of official regulations. Do not mix with other wastes. Do not empty into drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

| Land transport (ADB/BID) | | | |
|--|--|--|--|
| Land transport (ADR/RID) <u>14.1. UN number or ID number:</u> | No dangerous good in sense of this transport regulation. | | |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. | | |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. | | |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. | | |
| | | | |
| Inland waterways transport (ADN) | | | |
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. | | |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. | | |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. | | |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. | | |
| Marine transport (IMDG) | | | |
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. | | |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. | | |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. | | |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. | | |
| Air transport (ICAO-TI/IATA-DGR) | | | |
| 14.1. UN number or ID number: | No dangerous good in sense of this transport regulation. | | |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. | | |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. | | |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. | | |
| 14.5. Environmental hazards | | | |
| ENVIRONMENTALLY HAZARDOUS: | No | | |
| 14.6. Special precautions for user | | | |
| No dangerous good in sense of this transport regulation. | | | |
| 14.7. Maritime transport in bulk according to IMO instruments | | | |
| not applicable | | | |
| | | | |
| SECTION 15: Regulatory information | | | |
| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | | | |
| | | | |
| EU regulatory information | | | |
| Information according to 2012/18/EU | Not subject to 2012/18/EU (SEVESO III) | | |
| (SEVESO III): | | | |
| National regulatory information | | | |
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). | | |
| | | | |



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Water hazard class (D):

1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2.

Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50% LD50: Lethal dose, 50% Eye Dam: Eye damage

Relevant H and EUH statements (number and full text)

H318 Causes serious eye damage.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The receiver of our product is singularly responsible for adhering to existing laws and regulations.