

**SIGMA-ALDRICH****Material Safety Data Sheet**Version 3.0  
Revision Date 01/05/2009  
Print Date 09/02/2010**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : L-(+)-Tartaric acid

Product Number : 251380  
Brand : Sigma-Aldrich

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +18003255832  
Fax : +18003255052  
Emergency Phone # : (314) 776-6555

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : (2R,3R)-(+)-Tartaric acid  
L-Threarcic acid

Formula : C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>  
Molecular Weight : 150.09 g/mol

| CAS-No.                  | EC-No.    | Index-No. | Concentration |
|--------------------------|-----------|-----------|---------------|
| <b>(+)-Tartaric acid</b> |           |           |               |
| 87-69-4                  | 201-766-0 | -         | -             |

**3. HAZARDS IDENTIFICATION****Emergency Overview****OSHA Hazards**

Irritant

**HMIS Classification**

**Health Hazard:** 2  
**Flammability:** 1  
**Physical hazards:** 0

**NFPA Rating**

**Health Hazard:** 2  
**Fire:** 1  
**Reactivity Hazard:** 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.

**Ingestion**

May be harmful if swallowed.

**4. FIRST AID MEASURES****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point 150 °C (302 °F) - closed cup

Ignition temperature 425 °C (797 °F)

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**

Keep container tightly closed in a dry and well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves.

**Eye protection**

Safety glasses

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form crystalline

Colour white

**Safety data**

pH 1.0 - 2 at 150 g/l at 25 °C (77 °F)

Melting point 170 - 172 °C (338 - 342 °F)

Boiling point no data available

Flash point 150 °C (302 °F) - closed cup

Ignition temperature 425 °C (797 °F)

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility 150 g/l at 20 °C (68 °F) - completely soluble

Relative vapour density 5.18  
- (Air = 1.0)

**10. STABILITY AND REACTIVITY****Storage stability**

Stable under recommended storage conditions.

**Materials to avoid**

Bases, Oxidizing agents, Reducing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Intravenous - mouse - 485 mg/kg

Remarks: Behavioral:Convulsions or effect on seizure threshold. Blood: Hemorrhage.

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

### Chronic exposure

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component 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 identified as a carcinogen or potential carcinogen by OSHA.

### Signs and Symptoms of Exposure

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

### Potential Health Effects

- |                   |  |
|-------------------|--|
| <b>Inhalation</b> | May be harmful if inhaled. Causes respiratory tract irritation.  |
| <b>Skin</b>       | May be harmful if absorbed through skin. Causes skin irritation. |
| <b>Eyes</b>       | Causes eye irritation.   |
| <b>Ingestion</b>  | May be harmful if swallowed.                                     |

### Additional Information

RTECS: WW7875000

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## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

no data available

### Ecotoxicity effects

no data available

### Further information on ecology

no data available

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## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

## 15. REGULATORY INFORMATION

### OSHA Hazards

Irritant

### DSL Status

All components of this product are on the Canadian DSL list.

### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

SARA 313: 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.

### SARA 311/312 Hazards

Acute Health Hazard

### Massachusetts Right To Know Components

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

### Pennsylvania Right To Know Components

|                   | CAS-No. | Revision Date |
|-------------------|---------|---------------|
| (+)-Tartaric acid | 87-69-4 |               |

### New Jersey Right To Know Components

|                   | CAS-No. | Revision Date |
|-------------------|---------|---------------|
| (+)-Tartaric acid | 87-69-4 |               |

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

## 16. OTHER INFORMATION

### Further information

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