

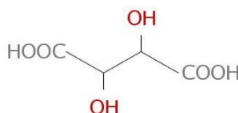
SAFETY DATA SHEET

L(+) TARTARIC ACID

Section 1: Identification of the Substance and of the Company

1.1 Product Identifier:

Product Name:	L(+) Tartaric Acid, Natural
Synonyms:	2,3 dihydroxybutanedioic acid
CAS Number:	87-69-4
EC Number:	201-766-0
E Number:	E334
Molecular Weight:	150.1
Chemical Formula:	C ₄ H ₆ O ₆
Structural Formula:	



1.2 Relevant Identified uses of the Substance and Uses Advised Against:

Relevant Identified Uses:	Acidifier, antioxidant, flavor enhancer, and stabilizing agent. Food Industry: acidifier in wine-making, production of tinned food, jam, jelly, confectionery and biscuits in general, soft drinks and table waters. Pharmaceutical & Cosmetic: preparation of medicines, effervescent tablets, and soluble drugs. Excipient and acidifier in syrups and antibiotics; production of natural beauty cream for face and body Industrial & Technical: retarding agent in the prep of gypsum, used in formulation of waterproof cements and heat-insulator. Used in textiles, tannings, ceramics, galvanoplastics, cleaning agents, and used as laboratory reagent.
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1.3 Details of the Supplier of the Safety Data Sheet:

Supplier:	ATPGroup 2 Madison Ave. Larchmont, NY 10538 USA Telephone: 914-834-1881 Fax: 914-834-4611 www.atpgroup.com
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1.4 Emergency Telephone Number

Telephone	800-424-9300 – CHEMTREC (24/7) – within USA & Canada +1 703-527-3887 – CHEMTREC (24/7) – International & Maritime 914-834-1881 – ATPGroup
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Section 2: Hazards Identification

2.1 Classification of the Substance:

The tartaric acid is not classified as hazardous under the provisions of 29 CFR § 1910.1200 (OSHA HCS 2012) Directives 67/548/EEC and 1999/45/CD and/or Regulation EC 1272/2008 (CLP) and subsequent amendments and adjustments

Classification pursuant to EC REG. No. 1272/2008

GHS05: Corrosion

H318: Causes serious eye damage

Classification pursuant to REG. 67/548/EEC, 1999/45/EC

Xi – IRRITANT

R41 – Risk of serious damage to eyes

S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection

S26 – In case of contact with eyes rinse immediately with plenty of water and seek medical advice

2.2 Label Elements:

According to OSHA HCS 2012: No label elements required.

According to EC REG. No. 1272/2008

Hazard Pictogram:



GHS05: Corrosion

Signal Word: Danger

Hazard Statements: H318: Causes serious eye damage

Precautionary Statements:

P280: Wear protective gloves/protective clothing/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.

2.3 Other Hazards:

According to OSHA HCS 2012: This product is not considered hazardous under the US OSHA 29 CFR 1910.1200 hazard communication standard.

According to EC REG. No. 1272/2008

CAUTION! MAY CAUSE IRRITATION TO SKIN AND EYES

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 0 - None

Reactivity Rating: 0 - None

Flammability Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Orange (General Storage)

GRAS (Generally Recognized as Safe): Product is included in the GRAS list

Section 3: Composition/Information on Ingredients

3.1 Substances

100% L(+) TARTARIC ACID – (see 1.1)

Section 4: First Aid Measures

4.1 Description of First Aid

General Advice: Immediate medical intervention is not necessary but is recommended at a later time if any problems persist. Show this safety data sheet to doctor.

Inhalation: Move person to fresh air. Get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. If large amounts were swallowed, give several glasses of water to drink to dilute. In serious cases seek medical advice.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

4.2 Most Important Symptoms and Effects, both Acute and Delayed

Inhalation: May cause irritation to the respiratory tract and of mucous membranes. Symptoms may include coughing and sneezing.

Ingestion: Mildly irritating to the gastro-intestinal system if large quantities are ingested. The effect is that of an acid, producing abdominal pain, nausea, vomiting, and diarrhea.

Skin Contact: May cause local and temporary irritation

Eye Contact: Causes strong irritation and serious damage

Chronic Exposure: No information found

Aggravation of Pre-existing Conditions: No information found

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

In case of doubt seek for medical advice

Section 5: Fire-fighting Measures

5.1 Extinguishing Media

Water spray, dry chemical, alcohol foam, or carbon dioxide.

5.2 Special Hazards Arising from the Substance

Fire: As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. If involved with fire, fumes can contain carbon monoxide.



Explosion: Not considered to be explosive. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3 Advice for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Non-Emergency Personnel: avoid breathing the dust and contact with eyes, leave the contaminated area. Wear suitable protective equipment (see section 8).

Emergency Personnel: ventilate area, wear appropriate protective equipment (see section 8), avoid breathing the dust and contact with eyes

6.2 Environmental Precautions

Do not let product enter drains, sewers, and surface/ground waters.

6.3 Methods and Material for Containment and Cleaning Up

Cover the drains to avoid product going into the sewage system, collect the spilled material in appropriate containers using a method that does not generate dust (vacuum cleaner or water cleaner) for reclamation or disposal in accordance with local rules. Flush area with water.

6.4 Reference to Other Sections

See Section 13

Section 7: Handling and Storage

7.1 Precautions for Safe Handling

Avoid contact with eyes and skin, using suitable protective equipment. Avoid inhalation and ingestion. Handle in accordance with good industrial hygiene practice and any legal requirements. Ensure adequate ventilation, especially in confined areas. Wash hands after use. Minimize dust generation and accumulation.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat/ignition, moisture, direct sunlight, extreme cold, and incompatibilities. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

7.3 Specific End Uses

See 1.2

Section 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- OSHA Permissible Exposure Limit (PEL):
15 mg/m³ total dust, 5 mg/m³ respirable fraction for nuisance dusts.
- ACGIH Threshold Limit Value (TLV):
10 mg/m³ total dust containing no asbestos and < 1% crystalline silica for Particulates Not Otherwise Classified (PNOC).

It is recommended not to exceed the following values on the basis of 8 hour exposures.

DN(M)ELs for workers

<i>Exposure Pattern</i>	<i>Route</i>	<i>Descriptor</i>	<i>DNEL / DMEL</i>	<i>(Corrected) Dose Descriptor</i>
Long-Term – Systemic Effects	Dermal	DNEL (Derived No Effect Level)	2.9 mg/kg bw/day	NOAEL: 145 mg/kg bw/day (based on AF of 50)
Long-Term – Systemic Effects	Inhalation	DNEL (Derived No Effect Level)	5.2 mg/m ³	NOAEC: 260.0 mg/m ³ (based on AF of 50)

DN(M)ELs for the general population

<i>Exposure Pattern</i>	<i>Route</i>	<i>Descriptor</i>	<i>DNEL / DMEL</i>	<i>(Corrected) Dose Descriptor</i>
Long-Term – Systemic Effects	Dermal	DNEL (Derived No Effect Level)	1.5 mg/kg bw/day	NOAEL: 150 mg/kg bw/day (based on AF of 100)
Long-Term – Systemic Effects	Inhalation	DNEL (Derived No Effect Level)	1.3 mg/m ³	NOAEC: 130 mg/m ³ (based on AF of 100)
Long-Term – Systemic Effects	Oral	DNEL (Derived No Effect Level)	8.1 mg/kg bw/day	NOAEL: 810 mg/kg bw/day (based on AF of 100)

8.2 Exposure Controls

Appropriate Engineering Controls: Provide ventilation system; in general dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Protective Equipment (PPE):

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-facepiece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-sullied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves (ref. EN 374) and clean body-covering clothing.

Eye Protection: Use chemical safety goggles with side shields (ref. EN 166). Maintain eye wash fountain and quick-drench facilities in work area.

Hygiene Measures: Handle with accordance with good industrial hygiene and safety practice. Wash your hands before breaks and at the end of the workday. Keep away from food and drink. Wash work clothing and PPE periodically to remove contaminants.

Section 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance: White or transparent crystals or crystalline powder, solid

Odor: Odorless

Odor Threshold: N/A

pH: 2.2 in water (15g/L)

Melting Point: 169°C at 1013 hPa

Freezing Point: No data available

Boiling Point: 179.1°C at 1013 hPa

Flash Point: >100°C at 102.3 kPa

Flammability: Not flammable **Upper Limit:** N/A **Lower Limit:** N/A

Explosive Properties: Not explosive **Upper Limit:** N/A **Lower Limit:** N/A

Auto-Ignition Temperature: 375°C at 1013 hPa

Decomposition Temperature: 425°C

Partition Coefficient: n-Octanol/water: Log Kow (Pow): -1.91 at 20°C

Solubility: ca.133 g/100 g of water.

Relative Density: 1.76

Vapor Density (Air=1): No data available

Evaporation Rate (BuAc=1): No data available

Vapor Pressure (mm Hg): No data available

Viscosity: No data available

Section 10: Stability and Reactivity

10.1 Reactivity

Product is not reactive under recommended use and storage.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage

10.3 Possibility of Hazardous Reactions

There are no hazardous reactions known

10.4 Conditions to Avoid

Heat, flames, ignition sources and incompatibles.

10.5 Incompatible Materials

Strong oxidizing agents, fluorine, silver, metals

10.6 Hazardous Decomposition Products

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Section 11: Toxicological Information

11.1 Information on Toxicological Effects

Acute Toxicity: Oral: LD50: > 2000 mg/kg bw for rat

Dermal: LD50: > 2000 mg/kg bw for rat



Skin Corrosion/Irritation: May be harmful if absorbed through skin causing mild irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation

Respiratory or Skin Sensitization: No Data Available

Germ Cell Mutagenicity: No Data Available

Reproductive Toxicity: No Data Available

STOT-Single Exposure: No Data Available

STOT-Repeated Exposure: No Data Available

Aspiration Hazard: Negative

Information on Likely Routes of Exposure: Inhalation, Ingestion, and Eye/Skin Contact.

-----\Cancer Lists\-----
---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
Tartaric Acid (87-69-4)	No	No	None

Section 12: Ecological Information

12.1 Toxicity

No information available

12.2 Persistence and Degradability

Biodegradation in water: readily biodegradable. Substance is expected to degrade readily in sewage treatment plants.

12.3 Bioaccumulative Potential

The aquatic bioaccumulation study does not need to be conducted as the substance is readily biodegradable

12.4 Mobility in Soil

The mobility in soil does not need to be evaluated as the substance is readily biodegradable

12.5 Results of PBT and vPvB Assessment

Not considered to be a PBT or vPvB substance

Section 13: Disposal Considerations

13.1 Waste Treatment Methods

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements. Empty containers have to be handled with the same caution as the pure substance.

Section 14: Transport Information

14.1 UN Number

Not classified as dangerous goods for transport.

14.2 UN Shipping Name



Not classified as dangerous goods for transport.

14.3 Types of Hazard Related to Transport

Road and Railway Transport:

Not classified as dangerous goods for transport.

Sea Transport:

Not classified as dangerous goods for transport.

Air Transport:

Not classified as dangerous goods for transport.

14.4 Packaging Group

Not classified as dangerous goods for transport.

14.5 Environmental Hazards

Not classified as dangerous goods for transport.

14.6 Special Precautions for Users

Not classified as dangerous goods for transport.

14.7 Transport in Bulk According to Annex II of Marpol and the IBC Code

Not classified as dangerous goods for transport.

Section 15: Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Tartaric Acid (87-69-4)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Tartaric Acid (87-69-4)	Yes	Yes	No	Yes

Federal, State & International Regulations – Part 1

SARA 302 SARA 313

Ingredient	RQ	TPQ	List	Chemical Catg
Tartaric Acid (87-69-4)	No	No	No	No

Federal, State & International Regulations – Part 2

Ingredient	CERCLA	RCRA	TSCA
		261.33	8(d)
Tartaric Acid (87-69-4)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: No Chronic: No Fire: No Pressure: No
 Reactivity: No (Pure / Solid)

Australian Haz Chem Code: NA

Poison Schedule: NA

WHMIS: This SDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

Section 16: Other Information

NFPA Ratings: Health: 0 Flammability: 1 Reactivity: 0



Label Hazard Warning: CAUTION! May cause irritation to skin and eyes.

Label Precautions: Avoid contact with eyes. Wash thoroughly after handling. Avoid breathing dust. Keep container closed. Use with adequate ventilation.

Label First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

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