

10-1460
4/2/08



Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							
See Section 15.								

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/ Trade Name	L-Tartaric acid	Catalog Number(s). YY082, T1019, T1020, YY396, T1009, T1015, TA110, TA105
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS# 87-69-4
Commercial Name(s)	Not available.	RTECS WW7875000
Synonym	2,3-Dihydroxybutanedioic acid; L-(+)-Tartaric Acid; Malic acid 3-hydroxy-; Succinic acid, 2,3-dihydroxy	TSCA TSCA 8(b) inventory: L-Tartaric acid
Chemical Name	Tartaric Acid	CI# Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000
Chemical Formula	HOOC(CHOH)2COOH	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) {L-}Tartaric acid	87-69-4				100
Toxicological Data on Ingredients		L-Tartaric acid LD50: Not available. LC50: Not available.			

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Corrosive to eyes and skin. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

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Potential Chronic Health Effects	<p>CARCINOGENIC EFFECTS: Not available.</p> <p>MUTAGENIC EFFECTS: Not available.</p> <p>TERATOGENIC EFFECTS: Not available.</p> <p>DEVELOPMENTAL TOXICITY: Not available.</p> <p>Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.</p>
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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	425°C (797°F)
Flash Points	OPEN CUP: 210°C (410°F).
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances	Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	As with most organic solids, fire is possible at elevated temperatures
Special Remarks on Explosion Hazards	Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Keep container dry. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not breathe dust. Never add water to this product. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, alkalis.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Crystalline solid.)	Odor	Odorless.
Molecular Weight	150.09 g/mole	Taste	Acid.
pH (1% soln/water)	Not available.	Color	White.
Boiling Point	Not available.		
Melting Point	168°C (334.4°F) - 172 C		
Critical Temperature	Not available.		
Specific Gravity	Density: 1.76 (Water = 1)		
Vapor Pressure	Not applicable.		
Vapor Density	5.18 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol, diethyl ether.		

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Solubility	Easily soluble in cold water, hot water, methanol. Soluble in diethyl ether. Solubility in Water: 1g/0.75 ml at room temperature. 1g/0.5 ml boiling water 115 g/100 ml @ 0 C 126 g/100 ml @ 10 C 139 g/100 ml @ 20 C 156 g/100 ml @ 30 C 176 g/100 ml @ 40 C 195 g/100 ml @ 50 C 217 g/100 ml @ 60 C 244 g/100 ml @ 70 C 273 g/100 ml @ 80 C 307 g/100 ml @ 90 C Solubility in methanol: 1 g/1.7 ml Solubility in ethanol: 1 g/3 ml Solubility in propanol: 1 g/10.5 ml Solubility in ether: 1 g/250 ml Also soluble in glycerol. Insoluble in chloroform
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Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, dust generation, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, reducing agents, alkalis.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Violent reaction possible with silver. Aqueous solution of tartaric acid can liberate explosive H ₂ gas if contact with reactive metals (Iron, Zinc, Aluminum)
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Inhalation. Ingestion.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LDL [Rat - Route: oral; Dose: 7500 mg/kg LDL [Rabbit] - Route: Oral; Dose: 5000 mg/kg LDL [Dog] - Rout: Oral; Dose: 5000 mg/kg Lethal Dose/Conc 50% kill: LD50 [Mouse] - Route: Intravenous; Dose: 485 mg/kg

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L-Tartaric acid

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Special Remarks on
Chronic Effects on Humans

Not available.

Special Remarks on other
Toxic Effects on Humans

Acute Potential Health Effects:

Skin: Causes skin irritation

Eyes: Causes eye irritation

Inhalation: Causes respiratory tract irritation

Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting and diarrhea. May affect kidneys (kidney damage), blood, and behavior (convulsions, somnolence), and respiration.

Chronic Potential Health Effects:

Ingestion: Repeated or prolonged ingestion may cause lesions of the mouth, gastric ulcers, gastrointestinal hyperacidity, and symptoms similar to those of metal fume fever - flu-like condition with fever, chills, sweats, nausea, vomiting, muscle aches, pains, and weakness.

Skin: Repeated or prolonged skin contact may cause skin ulcerations or lesions.

Section 12. Ecological Information

Ecotoxicity

Not available.

BOD5 and COD

Not available.

Products of Biodegradation

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products
of Biodegradation

The product itself and its products of degradation are not toxic.

Special Remarks on the
Products of Biodegradation

Not available.

Section 13. Disposal Considerations

Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification

Not a DOT controlled material (United States).

Identification

Not applicable.

Special Provisions for
Transport

Not applicable.

DOT (Pictograms)

**Section 15. Other Regulatory Information and Pictograms**Federal and State
Regulations

TSCA 8(b) inventory: L-Tartaric acid

California
Proposition 65
Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

Not available.

Other Classifications

WHMIS (Canada) CLASS E: Corrosive solid.

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DSCL (EEC)


R36/37/38- Irritating to eyes, respiratory system and skin.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	j

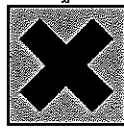
National Fire Protection Association (U.S.A.)

Health  Flammability
Reactivity
Specific hazard

WHMIS (Canada)
(Pictograms)



DSCL (Europe)
(Pictograms)



TDG (Canada)
(Pictograms)



ADR (Europe)
(Pictograms)



Protective Equipment



Gloves.



Synthetic apron.



Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

MSDS Code T3040

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/14/2006.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.