L(+)- Tartaric Acid, Natural

Section 1 – Identification of the substance/mixture and of the company/undertaking		
Product Identifier/Name:	L-(+)-Tartaric Acid, Natural	
Trade Name and Synonyms:	Natural tartaric acid; L(+)-Dihydroxysuccinic acid	
Chemical Name:	L(+)-Dihydroxysuccinic acid	
Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:	Acidifier, antioxidant, flavor enhancer, and stabilizing agent.	
Restrictions On Use:	None known	
Details of the Supplier:	ATPGroup 2 Madison Ave. Larchmont, NY 10538 USA Telephone: 914-834-1881 Fax: 914-834-4611 www.atpgroup.com	**Questions Contact:** compliance@atpgroup.com **Emergency Phone:** 800-424-9300 – CHEMTREC (24/7) – within USA & Canada +1 703-527-3887 – CHEMTREC (24/7) – International & Maritime (707) 836-6840 – ATPGroup
Section 2 – Hazards Identification		
GHS Classification and Labelling of the Substance or Mixture:		
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	Serious Eye damage/Eye Irritation (Category 2A)	
Label Elements **Signal Word:** **Hazard Statement:** **Pictogram:**	 Danger H318 Causes serious eye damage. 	
Precautionary Statement:	**Prevention:** Wear protective gloves/protective clothing/eye protection/face protection **Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician **Storage:** Store in a well-ventilated place. Keep container tightly closed	
Hazards not otherwise classified (HNOC): **Special Provisions:**	None identified None	
Section 3 – Composition / Information on Ingredients		
Substances:	Tartaric Acid 100%	CAS NO. 87-69-4
Mixtures: Composition comments:	N.A.	

Section 4 – First Aid Measures	
Description of First Aid Measures:	**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.
Most Important Symptoms and Effects, acute and delayed:	Causes eye burns. Causes severe eye damage.
Indication of Any Immediate Medical Attention and Special Treatment Needed:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Treatment: None
General information	Immediate medical intervention is not necessary but is recommended later if any problems persist. Show this safety data sheet to doctor.
Section 5 – Firefighting Measures	
Extinguishing Media:	Water spray, dry chemical, alcohol foam, or carbon dioxide.
Special Hazards Arising from the Substance or Mixture:	**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.
Special protective equipment and precautions 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	
Personal Precautions, Protective Equipment, 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
Environmental Precautions:	Do not let product enter drains, sewers, and surface/ground waters
Methods and Material for Containment and Clean-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.
Reference to Other Sections:	Section 13 of the SDS
Section 7 – Handling And Storage	

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.
Conditions For Safe Storage:	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.
Incompatibilities:	None in particular
Specific End Use:	See 1.2
Section 8 – Exposure Controls / Personal Protection	
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*

Exposure Pattern	*Route*	*Descriptor*	*DNEL / DMEL*	*(Corrected) Dose Descriptor*
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/m³	NOAEC: 260.0 mg/m³ (based on AF of 50)

DN(M)ELs for the general population

Exposure Pattern	Route	Descriptor	DNEL / DMEL	(Corrected) Dose Descriptor
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/m3	NOAEC: 130 mg/m3 (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)

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 Protection Information:	**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.
General Hygiene:	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

Information on Basic Physical and Chemical Properties:

Appearance: **Color**	White or transparent crystals or crystalline powder, solid	**Flammability:**	Not flammable
Odor:	Odorless	**Upper Flammability/Explosive Limit:**	Not available
Odor Threshold:	Not available	**Lower Flammability/Explosive Limit:**	Not available
pH:	2.2 in water (15g/L)	**Vapor Pressure:**	Not available
Melting Point:	169ºC at 1013 hP	**Vapor Density:**	Not available
Freezing Point:	Not available	**Relative Density:**	1.76
Boiling Point:	179.1ºC at 1013 hPa	**Solubility:**	ca.133 g/100 g of water
Boiling Range:	Not available	**Partition Coefficient: n-octanol/water:**	Log Kow (Pow): -1.91 at 20ºC
Flash Point:	>100ºC at 102.3 kPa	**Auto Ignition Temperature:**	375ºC at 1013 hPa
Evaporation Rate:	Not available	**Decomposition Temperature:**	425ºC
Molecular Weight	12.01 g/mol	**Viscosity:**	Not available

Molecular Weight	150.1	**Molecular Formula**	$C_4H_6O_6$
Section 10 – Stability and Reactivity			
Reactivity:	Product is not reactive under recommended use and storage.		
Chemical Stability:	Stable under ordinary conditions of use and storage		
Hazardous Polymerization:	None		
Possibility of Hazardous Reaction	There are no hazardous reactions known		
Conditions to Avoid:	Heat, flames, ignition sources and incompatibles.		
Incompatible Materials:	Strong oxidizing agents, fluorine, silver, metals		
Hazardous Decomposition Products	Carbon dioxide and carbon monoxide may form when heated to decomposition.		
Section 11 – Toxicological Information			
Information on Toxicological Effects:			
Routes of Entry:	Inhalation, Ingestion, and Eye/Skin Contact.		
Acute Toxicity:	Oral: LD50: > 2000 mg/kg bw for rat Dermal: LD50: > 2000 mg/kg bw for rat		
Skin corrosivity/Irritation:	May be harmful if absorbed through skin causing mild irritation.		
Eye damage/irritation	Causes serious eye irritation		
Sensitization:	No Data Available		
Repeated Dose Toxicity:	No Data Available		
Carcinogenicity:	None		
Mutagenicity:	None		
Reproduction: Toxicity:	No Data Available		
Aspiration hazard: **Chronic effects:** **Further information:**	Negative No Data Available		
Section 12 – Ecological Information			
Ecotoxicity:	No information available		
Persistence & Degradability:	Biodegradation in water: readily biodegradable. Substance is expected to degrade readily in sewage treatment plants.		
Bioaccumulation Potential:	The aquatic bioaccumulation study does not need to be conducted as the substance is readily biodegradable		
Mobility in Soil:	The mobility in soil does not need to be evaluated as the substance is readily biodegradable		
Results of PBT and vpvB Assessment:	Not considered to be a PBT or vPvB substance		
Other Adverse Effects:	None		
Section 13 – Disposal Considerations			

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	
DOT: **IATA:** **IMDG**	Not regulated as dangerous goods. Not regulated as dangerous goods. Not regulated as dangerous goods.
UN Number: **UN Proper Shipping Name:** **Transport Hazard Class(es):** **Packing Group:** **Environmental Hazards:** **Marine Pollutant:** **Special Precautions for User:** **IMDG/IMO:**	Not available Not available Not applicable Not applicable Not applicable The product is not classified as a marine pollutant. Not available Not regulated as dangerous goods.
Transportation in Bulk According to Annex II of MARPOL73/78 and the IBC Code:	Not applicable
General information:	
Section 15 – Regulatory Information	
Safety Health and Environmental Regulations/ Legislation Specific for the Substance or Mixture	**USA - Federal regulations** **TSCA - Toxic Substances Control Act:** This substance is listed on the TSCA inventory TSCA listed substances: None **SARA - Superfund Amendments and Reauthorization Act** Section 302 – Extremely Hazardous Substances: No Section 304 – Hazardous substances: No Section 313 – Toxic chemical list: No **CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act** No substances listed. **CAA - Clean Air Act** CAA listed substances: None **CWA - Clean Water Act** CWA listed substances: None **USA - State specific regulations** **California Proposition 65** Substance(s) listed under California Proposition 65: None **Massachusetts Right to know** Substance(s) listed under Massachusetts Right to know: No

New Jersey Right to know

Substance(s) listed under New Jersey Right to know: Yes

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know: Yes

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States	Toxic Substances Control Act (TSCA) Inventory	Yes
Japan		Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 – Other Information

Revision date **Version #**	March 12, 2024 05
HMIS® Ratings	Health: 0 Flammability: 1 Physical hazard: 0
NFPA Ratings	Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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