


Section 1: Identification

Common Name/Trade Name	Citric Acid Anhydrous	
Supplier Information	Letco Medical, LLC 1316 Commerce Drive NW Decatur, AL 35601 1 (800) 239-5288 +1 (734) 843-4693	IN CASE OF EMERGENCY: Chemtrec 1 (800) 424-9300 (24 hours) NSW Poisons Information Centre: 131 126 (24 hours)
Distributor Name	Bella Corp Trading Pty Ltd 6/34 Dominions Road, Ashmore QLD 4214, Australia Telephone: 07 5597 4169 Email: bellacorp@bellacorp.com.au	
Product Synonym(s)	2-hydroxypropane-1,2,3-tricarboxylic acid	
Relevant Use(s) of Product	Manufacture or Compounding of Substances	

Section 2: Hazards Identification

Classification of Substance or Mixture	Eye Irritation. Category 2A	
Signal Word	Warning	
Hazard Statement(s)	H319 Causes serious eye irritation	
Pictogram(s)		
Precautionary Statement(s)	P264 Wash hands thoroughly after handling. 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. P337+P313 If eye irritation persists Get medical advice/attention.	
Hazards Not Otherwise Classified	May form combustible dust concentrations in air (during processing).	
Ingredient(s) with Unknown Toxicity	No data available	

Section 3: Composition/Information on Ingredients

Chemical Name	2-hydroxypropane-1,2,3-tricarboxylic acid
Common Name	Citric Acid Anhydrous
CAS Number	77-92-9
Impurities and/or Stabilizing Additives	No data available

Section 4: First Aid Measures

General Advice	Avoid inhalation, ingestion and contact with skin and eyes. Consult a physician.
If Inhaled	If breathed in, move person into fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
In Case of Skin Contact	If easy to do, remove contact lens, if worn. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist
In Case of 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. Get medical attention immediately if irritation develops or persists or if visual changes occur.
If Swallowed	Drink plenty of water. If swallowed, DO NOT induce vomiting.
Most Important Symptoms and Effects	Eye irritation may cause mild and mechanical irritation and thus symptoms which would be redness and pain. Causes serious eye irritation. Notes to physician: Treat symptomatically.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Suitable extinguishing media: Water spray Dry powder Foam Carbon dioxide (CO ₂) Unsuitable extinguishing media: High volume water jet
Special Hazards Arising From the Substance/Mixture	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Hazardous combustion products: Carbon dioxide (CO ₂) Carbon monoxide Specific extinguishing methods: Standard procedure for chemical fires.
Special PPE and/or Precautions for Firefighters	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes. Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Wear fire resistant or flame-retardant clothing.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Avoid dust formation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid breathing dust. Ensure adequate ventilation, especially in confined areas. Wear personal protective equipment. Avoid contact with skin and eyes. Refer to protective measures listed in sections 7 and 8.
Methods and Materials Used for Containment	No special environmental precautions required. Prevent further leakage or spillage if safe to do so.
Cleanup Procedures	Use mechanical handling equipment. Non-sparking tools should be used. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

Section 7: Handling and Storage

Precautions for Safe Handling	Normal measures for preventive fire protection. Advice on safe handling: Risk of dust explosion. Do not breathe dust. Avoid contact with skin and eyes. Wear personal protective equipment. For personal protection see section 8.
Conditions for Safe Storage	Keep in an area equipped with acid-resistant flooring. Keep container tightly closed in a dry and well-ventilated place. Minimize dust generation and accumulation. Take measures to prevent the build-up of electrostatic charge. Materials to avoid: Incompatible with strong bases and oxidizing agents. Further information on storage stability: No decomposition if stored and applied as directed.

Section 8: Exposure Controls/Personal Protection

Components with Workplace Control Parameters	Contains no substances with occupational exposure limit values.
Appropriate Engineering Controls	Provide adequate ventilation. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas.
PPE - Eye/Face Protection	Safety glasses Ensure that eyewash stations and safety showers are close to the workstation location.
PPE - Skin Protection	Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Choose body protection according to the amount and concentration of the dangerous substance at the workplace.
PPE - Body Protection	Choose body protection according to the amount and concentration of the dangerous substance at the workplace.
PPE - Respiratory Protection	In the case of dust or aerosol formation use respirator with an approved filter. Use NIOSH approved respiratory protection.

Section 9: Physical and Chemical Properties

Appearance	White Crystalline
Upper/Lower Flammability or Explosive Limits	N/A
Odor	Odorless
Vapor Pressure	Not applicable
Odor Threshold	N/A
Vapor Density	Not applicable
pH	1.8 (77°F/25°C) Concentration 5%
Relative Density	1.665 (68°F/20°C)
Melting Point/Freezing Point	ca. 307°F/153°C
Solubility	Water solubility: 1,450 g/l (68°F/20°C)
Initial Boiling Point and Boiling Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (Solid, Gas)	does not ignite
Partition Coefficient	Partition coefficient: n-octanol/ water: log Pow: -1.8 – -0.2 Calculation
Auto-Ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	Not applicable

Section 10: Stability and Reactivity

Reactivity	No decomposition if stored and applied as directed.
Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	No dangerous reaction known under conditions of normal use.
Conditions to Avoid	Avoid dust formation.
Incompatible Materials	Strong bases Oxidizing agents
Hazardous Decomposition Products	Build-up of dangerous/toxic fumes possible in cases of fire/high temperature. Carbon dioxide (CO ₂) Carbon monoxide

Section 11: Toxicological Information

Acute Toxicity - LD50 Oral	LD50 Oral (Mouse): 5.400 mg/kg body weight Method: OECD Test Guideline 401 LD50 Oral (Rat): 11.700 mg/kg body weight Method: OECD Test Guideline 401
Acute Toxicity - Inhalation	No data available
Acute Toxicity - Dermal	LD50 Dermal (Rat): > 2.000 mg/kg body weight
Acute Toxicity - Eye	Species: Rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405
Skin Corrosion/Irritation	Species: Rabbit Method: OECD Test Guideline 404 Result: No skin irritation Remarks: May cause skin irritation in susceptible persons.
Serious Eye Damage/Irritation	Causes serious eye irritation
Respiratory or Skin Sensitization	No known sensitizing effect
Germ Cell Mutagenicity	Genotoxicity in vitro: Test Type: Ames test. Test system: Salmonella typhimurium Concentration: 0 - 5 mg/plate Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative Genotoxicity in vivo: Test Type: in vivo assay Species: Rat Application Route: Oral Method: OECD Test Guideline 475 Result: negative Germ cell mutagenicity - Assessment: In vitro tests did not show mutagenic effects
Carcinogenicity IARC	Carcinogenicity - Assessment: Not classifiable as a human carcinogen.
Carcinogenicity ACGIH	Carcinogenicity - Assessment: Not classifiable as a human carcinogen.
Carcinogenicity NTP	Carcinogenicity - Assessment: Not classifiable as a human carcinogen.
Carcinogenicity OSHA	Carcinogenicity - Assessment: Not classifiable as a human carcinogen.
Reproductive Toxicity	Reproductive toxicity -: No toxicity to reproduction assessment
Specific Target Organ Toxicity - Single Exposure	No data available
Specific Target Organ Toxicity - Repeated Exposure	Citric acid anhydrous: Species: Rat NOAEL: 4,000 mg/kg LOAEL: 8,000 mg/kg Application Route: Oral Exposure time: 10 d Dose: 2, 4, 8, 16 g/kg bw/day
Aspiration Hazard	No aspiration toxicity classification

Section 12: Ecological Information

Toxicity	Toxicity to fish: LC50 (Leuciscus idus (Golden orfe)): 440 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 203 Toxicity to daphnia and other aquatic invertebrates: LC50 (Daphnia magna (Water flea)): 1,535 mg/l Exposure time: 24 h Test Type: static test Method: OECD Test Guideline 202 Toxicity to algae: NOEC (Scenedesmus quadricauda (Green algae)): 425 mg/l Exposure time: 8 d Test Type: static test Toxicity to microorganisms: TT (Pseudomonas putida): > 10,000 mg/l Exposure time: 16 h
Persistence and Degradability	Biodegradability: Biodegradation: 97 % Testing period: 28 d Method: OECD Test Guideline 301B Remarks: Readily biodegradable. Biodegradation: 100 % Testing period: 19 d Method: OECD Test Guideline 301E Remarks: Readily biodegradable. Biochemical Oxygen Demand (BOD): 526 mg/g Chemical Oxygen Demand (COD): 728 mg/g Physico-chemical removability: Remarks: Readily biodegradable.
Bio-accumulative Potential	Bioaccumulation: Remarks: The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected. Partition coefficient: n-octanol/ water: log Pow: -1.8 - -0.2
Mobility in Soil	No data available
Other Adverse Effects	Results of PBT and vPvB assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). Additional ecological information: This product has no known ecotoxicological effects.

Section 13: Disposal Considerations

Waste Treatment Methods Product	Where possible recycling is preferred to disposal or incineration. Can be landfilled or incinerated, when in compliance with local regulations.
Waste Treatment Methods Packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of as unused product.
Special Precautions Landfill or Incinerations	No data available
Other Information	No data available

Section 14: Transport Information

UN Number	Not dangerous goods.
UN Proper Shipping Name	N/A
Transport Hazard Class(es)	N/A
Packaging Group	N/A
Environmental Hazards	No data available.

Section 15: Regulatory Information

EPCRA - Emergency Planning and Community Right-to-Know Act SARA 302 Extremely Hazardous Substances Threshold Planning Quantity No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 311/312 Hazards: Acute Health Hazard Fire Hazard 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. Clean Water Act This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307 California Prop. 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. The components of this product are reported in the following inventories: EINECS: On the inventory, or in compliance with the inventory TSCA: All substances listed as active on the TSCA inventory TSCA_12b: Not applicable DSL: All components of this product are on the Canadian DSL REACH: On the inventory, or in compliance with the inventory TSCA list No substances are subject to a Significant New Use Rule. No substances are subject to TSCA 12(b) export notification requirements.

Section 16: Other Information

Additional Information	N/A
Prepared By	Scarlotte Smith
Revision Date	08/23/2023 15:49

Disclaimer

Letco Medical, LLC believes that the above information is correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. If the product is used as a component in another product, this information may not be applicable. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED ABOVE. Letco Medical shall not be held liable for any loss or damage resulting from handling, storage, use or from contact with the above product.