



## Material Safety Data Sheet

LA1002  
Citric Acid

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Id:** LA1002  
**Product Name:** Citric Acid  
**Synonyms:** 2-Hydroxy-1,2,3 Propanetricarboxylic Acid  
**Chemical Family:** Organic Acid  
**Application:** Not Available.

**Distributed By:**  
Univar Canada Ltd.  
9800 Van Horne Way  
Richmond, BC  
V6X 1W5

**Prepared By:** The Safety, Health and Environment Department of Univar Canada Ltd.  
**Preparation date of MSDS:** 21 May 2009  
**Telephone number of preparer:** 1-866-686-4827

**24-Hour Emergency Telephone Number (CANUTEC):** (613) 996-6666

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	LD50s and LC50s Route & Species:
Citric acid 77-92-9	60-100	Oral LD50 (Rat) = 3000 mg/kg

**Note:** No additional remark.

### 3. HAZARDS IDENTIFICATION

**Potential Acute Health Effects:**

**Eye Contact:** Causes moderate to severe irritation, experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling of the conjunctiva.

**Skin Contact:** Prolonged contact may cause severe irritation, with local discomfort or pain, and local redness and swelling.

**Inhalation:** May cause irritation of the respiratory tract.

**Ingestion:** If large amounts of the product are ingested, symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea.

#### 4. FIRST AID MEASURES

**Eye Contact:** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.  
**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and laundry before reuse.  
**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.  
**Ingestion:** Do not induce vomiting. Seek medical attention.  
**Notes to Physician:** Treat symptomatically.

#### 5. FIRE FIGHTING MEASURES

**Flash Point:** None.  
**Flash Point Method:** Not applicable.  
**Autoignition Temperature:** 345°C /653°F  
**Flammable Limits in Air (%):** Lower: 8 gram/cubic feet% Upper: 65 gram/cubic feet%  
**Extinguishing Media:** Use DRY chemicals, CO<sub>2</sub>, alcohol foam or water spray.  
**Special Exposure Hazards:** Avoid dusting. May form explosive dust-air mixtures. Emits toxic fumes under fire conditions.  
**Hazardous Decomposition/Combustion Materials (under fire conditions):** Oxides of carbon. Toxic fumes.  
**Special Protective Equipment:** Fire fighters should wear full protective clothing, including self-contained breathing equipment.  
**NFPA RATINGS FOR THIS PRODUCT ARE:** HEALTH 1, FLAMMABILITY 0, INSTABILITY 0  
**HMIS RATINGS FOR THIS PRODUCT ARE:** HEALTH 1, FLAMMABILITY 0, REACTIVITY 0

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures:** Wear appropriate protective equipment.  
**Environmental Precautionary Measures:** Prevent entry into sewers or streams, dike if needed.  
**Procedure for Clean Up:** Scoop up or vacuum up and place in an appropriate closed container.

#### 7. HANDLING AND STORAGE

**Handling:** Avoid breathing in dust. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid dust generation and provide for room ventilation during handling. Avoid air conveying of powdered product due to potential of static buildup. Keep the containers closed when not in use.  
**Storage:** Store in a dry place away from excessive heat, in original or similar waterproof containers. Keep containers tightly closed. Storage temperature: Max. 207°C (405°F) Product deteriorates. Store in accordance with good industrial practices.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Engineering Controls:

Localized ventilation should be used to control dust levels.

**Respiratory Protection:** If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

##### Gloves:

Rubber gloves. Vinyl gloves.

**Skin Protection:** Normal work coveralls.

**Eyes:** Safety glasses with side shields or chemical goggles.

**Other Personal Protection Data:** Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous to Life or Health - IDLH
Citric acid	Not available.	Not available.	Not Available.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Crystals

**Colour:** White

**Odour:** Odourless

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**pH** 2.2 (1%), 1.8 (5%), 1.7 (10%), 0.8 (50%)

**Specific Gravity:** 1.665 @ 20°C

**Boiling Point:** Not Available.

**Freezing/Melting Point:** Not Available.

**Vapour Pressure:** Not Available.

**Vapour Density:** Not Available.

**% Volatile by Volume:** Not Available.

**Evaporation Rate:** Not Available.

**Solubility:** Soluble in water. Soluble in methanol.

**VOCs:** Not Available.

**Viscosity:** Not Available.

**Molecular Weight:** 192.13

**Other:** Not Available.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** None known.

**Materials to Avoid:** Caustics. Carbon.

**Hazardous Decomposition Products:** Oxides of carbon. Toxic fumes.

**Additional Information:**

Solutions are mildly corrosive to carbon steel.

## 11. TOXICOLOGICAL INFORMATION

**Principle Routes of Exposure**

**Ingestion:** If large amounts of the product are ingested, symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea.

**Skin Contact:** Prolonged contact may cause severe irritation, with local discomfort or pain, and local redness and swelling.

**Inhalation:** May cause irritation of the respiratory tract.

**Eye Contact:** Causes moderate to severe irritation, experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling of the conjunctiva.

**Additional Information:** Pre-existing eye and skin disorders may be aggravated by exposure to this product.

**Acute Test of Product:**

**Acute Oral LD50:** Not Available.

**Acute Dermal LD50:** Not Available.

**Acute Inhalation LC50:** Not Available.

**Carcinogenicity:**

Ingredients	IARC - Carcinogens	ACGIH - Carcinogens
Citric acid	Not listed.	Not listed.

**Carcinogenicity Comment:** No additional information available.

**Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity:** Not Available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
Citric acid	LC50/96h/goldfish : 440-706 mg/l	Not Available.	Not Available.

### Other Information:

No additional remark.

## 13. DISPOSAL CONSIDERATIONS

**Disposal of Waste Method:** Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

**Contaminated Packaging:** Empty containers should be recycled or disposed of through an approved waste management facility.

## 14. TRANSPORT INFORMATION

### DOT (U.S.):

**DOT Shipping Name:** Not Regulated.

**DOT Hazardous Class:** Not Applicable.

**DOT UN Number:** Not Applicable.

**DOT Packing Group:** Not Applicable.

**DOT Reportable Quantity (lbs):** Not Available.

**Note:** No additional remark.

**Marine Pollutant:** No.

### TDG (Canada):

**TDG Shipping Name:** Not Regulated.

**Hazard Class:** Not Applicable.

**UN Number:** Not Applicable.

**Packing Group:** Not Applicable.

**Note:** No additional remark.

**Marine Pollutant:** No.

## 15. REGULATORY INFORMATION

**U.S. TSCA Inventory Status:** All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

**Canadian DSL Inventory Status:** All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**Note:** Not available.

### U.S. Regulatory Rules

Ingredients	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Citric acid	Not Listed.	Not Listed.	Not Listed.

**California Proposition 65:** Not Listed.

**MA Right to Know List:** Not Listed.

**New Jersey Right-to-Know List:** Not Listed.

**Pennsylvania Right to Know List:** Not Listed.

**WHMIS Hazardous Class:**

E CORROSIVE MATERIAL



## 16. OTHER INFORMATION

### **Additional Information:**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

### **Disclaimer:**

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\*\*\*END OF MSDS\*\*\*