



# Groupe Horticole Ledoux inc.

785, rue Paul Lussier  
Ste-Helene de Bagot  
Qc, Canada, J0H 1M0

Téléphone: (450) 791.2222  
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## MATERIAL SAFETY DATA SHEET

### SECTION I PRODUCT INFORMATION

**PRODUCT IDENTIFIER** : CITRIC ACID ANHYDROUS USP  
**GHL ITEM #** : 100-01010030 / 100-01010040  
**CHEMICAL NAME AND SYNONYMS** : Citric acid  
**IDENTIFICATION NUMBER** : Not regulated  
**PRODUCT USE** : Use as food additive, pharmaceutical, cleaning and polishing metals.  
**SUPPLIER** : Groupe Horticole Ledoux inc.  
**ADDRESS** : 785 rue Paul Lussier  
Ste-Hélène-de-bagot, QC  
J0H 1M0  
**TELEPHONE** : (450) 791-2222

**EMERGENCY: CANUTEC (24h): 1-613-996-6666**

### SECTION II HAZARDOUS INGREDIENTS

INGREDIENT	CONC.	CAS NUMBER	LD50(oral)	LC50(rat-ihl)
Citric acid, anhydrous	100%	77-92-9	3000 mg/kg (rat) 5040 mg/kg (mouse)	Not available

### SECTION III WHMIS CLASSIFICATION



CLASS E

### SECTION IV PHYSICAL DATA

PHYSICAL STATE	Solid	pH (water=7)	2,2 (1% solution)
ODOR AND APPEARANCE	Odourless, white crystals	SPECIFIC GRAVITY	1,66 (water = 1)
ODOR THRESHOLD	Not available	VAPOR DENSITY	Not applicable
BOILING POINT	Decomposes	VAPOR PRESSURE	Not available
MELTING POINT	153°C	EVAPORATION RATE	Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION	Not available		

### SECTION V FIRE OR EXPLOSION

**HAZARDOUS DECOMPOSITION PRODUCTS** : Oxides of carbon.

**MEANS OF EXTINCTION:** Use flooding quantities of water. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full face operated in a pressure demand or other positive pressure mode. Cool containing vessels with flooding quantities of water until well after fire is out.

**FIRE AND EXPLOSION HAZARDS:** This material in powder form is capable of creating a dust explosion. The sensitivity to static discharge is not available. When heated to decomposition it emits acrid smoke and fumes.

FLASH POINT	Not available	AUTO-IGNITION TEMPERATURE	1011°C (1852°F)
UPPER FLAMMABLE LIMIT	Not available	MECHANICAL IMPACT SENSITIVITY	Not available
LOWER FLAMMABLE LIMIT	Not available	STATIC DISCHARGE SENSITIVITY	Not available





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## SECTION VI REACTIVITY DATA

**INCOMPATIBLE SUBSTANCES AND CONDITIONS OF REACTIVITY:** Hazardous polymerization will not occur. Incompatible with oxidizing agents, bases, potassium tartrate, alkali carbonates et bicarbonates, acetates, sulphides, metallic nitrates (potentially explosive reaction). Corrosive to copper, aluminium, zinc, lead, iron and their alloys. Avoid exposure to heat and ignition sources.

**CHEMICAL INSTABILITY CONDITIONS:** Stable. Conditions to avoid : High temperatures, sparks, open flames an all other sources of ignition. Anhydrous citric acid readily absorbs moisture from air. Aqueous solutions of citric acid can liberate explosive hydrogen gaz if contacted with reactive metals. Aqueous reaction with caustic soda can generate heat (strongly exothermic).

## SECTION VII TOXICOLOGICAL PROPERTIES

**SKIN CONTACT/ABSORPTION:** Cause skin irritation with redness and pain. Prolonged contact can cause severe irritation or even burns. Repeated or prolonged skin contact may cause dermatitis. May cause sensitization by skin contact. The amount of tissue damage depends on length of contact.

**EYE CONTACT:** Causes irritation with redness, pain and conjunctivitis. May cause severe burns ans loss of vision. May cause permanent damage.

**INHALATION:** Breathing dust may irritate the mucous membranes and upper respiratory tract. Exposure can cause coughing, chest pain and difficulty in breathing.

**INGESTION:** Cause irritation gastrointestinal irritation with nausea, vomiting, diarrhoea. Citric acid decreases iron and calcium adsorption.

**ACUTE/CHRONIC EXPOSURE EFFECTS:** See above. Prolonged exposure may damage tooth enamel.

<b>EXPOSURE LIMIT</b>	10 mg/m <sup>3</sup>	<b>SHORT TERM EXPOSURE LIMIT</b>	15 mg/m <sup>3</sup>
<b>CARCINOGENICITY</b>	Not listed	<b>SENSITIZATION TO PRODUCT</b>	Not available
<b>TERATOGENICITY</b>	Not available	<b>MUTAGENICITY</b>	Not available
<b>SYNERGISTIC PRODUCTS</b>	None	<b>REPRODUCTIVE TOXICITY</b>	No
<b>IRRITANCY OF PRODUCT</b>	Yes		

## SECTION VIII PREVENTIVE MEASURES

**PROTECTIVE GLOVES:** Wear chemical resistant gloves (rubber, neoprene, polyvinyl alcohol).

**EYE PROTECTION:** Wear chemical goggles. Contact lenses should not be worn, as they may contribute to the severity of an eye injury.

**RESPIRATORY PROTECTION:** Wear dust mask.

**OTHER PROTECTIVE EQUIPMENT:** Wear boots and impervious protective clothing. Eye bath and safety shower should be nearby and ready for use.

**ENGINEERING CONTROLS:** General ventilation to maintain airborne concentrations below exposure limit.

**PROCEDURES TO BE FOLLOWED IN CASE OF SPILL OR LEAK:** Wear protective equipment including rubber boots, gloves, and apron, full face or a half mask air purifying cartridge respirator with particulate filters. For small spills, sweep up and dispose in approved waste containers. For large spills, shovel in approved waste containers. Flush area with water to remove trace of residue. Keep out of sewers, storm drains, surface waters, and soil.

**WASTE DISPOSAL:** Dispose of wastes in accordance of Federal, Provincial, and Municipal regulations.

**HANDLING AND STORAGE PROCEDURES:** Store in a cool, dry, well ventilated area, away from incompatible materials, heated areas, sparks and flame. Keep bags or fibre drums dry at all times. Manipulate in a well ventilated area or under an adequate fume hood. Avoid rising dust. Empty containers may contain a hazardous residue. Handle and open container with car. This product must be manipulated





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by qualified personnel. Do not allow smoking, food and drink consumption while handling. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing.

## SPECIAL SHIPPING INFORMATION:

Shipping Name: CITRIC ACID  
Class/Division: Not regulated

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## SECTION IX FIRST AID MEASURES

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**SKIN:** Immediately wash skin with plenty of soapy water for 15 minutes. Remove contaminated clothing and shoes. Wash before reuse. Get medical attention if irritation persists after washing.

**EYES:** Immediately flush eyes with lots of running water for at least 15 minutes, lifting eyelids. Get medical attention.

**INHALATION:** Remove victim to fresh air. Administer approved oxygen supply if breathing is difficult. Give artificial respiration or CPR if not breathing. Get immediate medical attention.

**INGESTION:** If conscious, give several glasses of water or water to drink. Do not induce vomiting. Consult a physician immediately.

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## SECTION X PREPARATION INFORMATION

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PREPARED BY :  
TELEPHONE : (514) 630-3309  
DATE : August 20<sup>th</sup>, 2013

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IMPORTANT: The information presented herein is believed to be accurate and is offered only as a guide. Users should make their own tests to determine the suitability of these products for their own particular purposes. Users assume all risk of use, storage and handling of the product. No warranty, express or implied, is made including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Nothing contained herein shall be construed as a license to operate under, or recommendation to infringe any patents.

