



**MATERIAL SAFETY DATA SHEET**

**SECTION: 1.1 PRODUCT IDENTIFICATION**

**Product Name:** Citric Acid (Raw Material)  
**Chemical Formula:** C<sub>6</sub>-H<sub>8</sub>-O<sub>7</sub>  
**Synonyms:** Beta-hydroxy-tricarboxylic acid, 2-Hydroxy-1,2,3-propanetricarboxylic acid  
**INCI Name:** Not available  
**CAS #** 77-92-9  
**Country of Origin:** Canada

**SECTION: 1.2 COMPANY IDENTIFICATION**

**Company:** New Directions Aromatics Inc.  
**Address:** 6781-Columbus Road, Mississauga. L5T 2G9 Canada  
**Telephone No:** 905-362-1915  
**FAX:** 905-362-1926

**24 HOUR EMERGENCY TELEPHONE NUMBER: (613)-996-6666 CANUTEC**

**SECTION: 2. COMPOSITION / INFORMATION INGREDIENTS**

Component	CAS Number	EINECS Number	Proportions [%w/w]
Citric Acid	77-92-9	Not allotted	

**SECTION: 3. HAZARDS IDENTIFICATION**

*Potential Acute Health Effects: Very Hazardous in case of eye contact (irritant, corrosive). Hazardous in case of skin contact (irritant) of inhalation (Lung irritant). Slightly hazardous in case of ingestion. The amount of tissue damage depends on length of contact. Eye contact result in corneal damage or blindness. Inflammation of eye is characterized by redness, watering, and itching. This product may cause allergic reactions in some individual.*

**Inhalation:** May cause respiratory irritation.  
**Skin Contact:** Causes skin irritation  
**Eye Contact:** Causes eye irritation.  
**Ingestion:** Non-hazardous in case of ingestion.  
**Potential Chronic Health Effects:** Carcinogenic effects: Not available.  
Mutagenic effects: Not available.  
Teratogenic effects: Not available.  
Developmental Toxicity: Not available.

Repeated exposure of the eyes to a low level of dust produce irritation. Repeated skin exposure can produce local skin destruction and dermatitis.

**SECTION: 4. FIRST AID MEASURES**

**Eye Contact:** Contact with eyes can produce burning sensation. Flush eyes with water immediately, continue flushing eyes with water for 15 minutes. Seek medical attention if irritation persists.

**Inhalation:** Remove the person to fresh air. Give oxygen if not breathing and seek medical advice. Avoid casual breathing. Signs of over exposure are dizziness and nausea.

**Ingestion:** Rinse mouth; dilute with milk or water and consult a physician immediately. Do not induce vomiting. Never-give anything by mouth if victim is unconscious, is rapidly losing or is convulsing.

**Skin Contact:** Skin contact can produce irritation, or itching of the skin. Remove contaminated



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clothing. Wash plenty of water. Seek medical attention if irritation persists

#### SECTION: 5. FIRE FIGHTING MEASURES

<b>Flammable Limits:</b>	N/A
<b>Extinguishing media:</b>	Slightly flammable in open flame.
<b>Special Procedures:</b>	N/A
<b>Unusual Firefighting Hazards:</b>	None identified.
<b>Combustion Product:</b>	Carbon Monoxide, Carbon Dioxide

#### SECTION: 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Use of self-contained breathing apparatus is recommended for any major chemical spill.
<b>Safety Precautions:</b>	Use a shovel to put the material into a convenient waste disposal container.
<b>Environmental Precautions:</b>	Keep away from drains, surface and ground water. Report spills to appropriate Authorities if required.
<b>Methods For Cleaning Up:</b>	Pick up spilled material and containerize for recovery or disposal. Flush area with water to remove residues.

#### SECTION: 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid inhalation and contact with skin and eyes. Good personal hygiene practices should be used.
<b>Storage:</b>	Containers should be kept closed in order to minimize contamination. Store in sealed original container. Make sure the material does not come into contact with Acids

#### SECTION: 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Eyes Protection:</b>	The use of safety glasses is recommended.
<b>Respiratory Protection:</b>	In well- ventilated areas, respiratory protection is not normally required. In confined, poorly ventilated areas the use of "NIOSH" approved respiratory protection normally required (use only if trained in proper use and with acceptable oxygen level).
<b>Protective Gloves:</b>	Using chemical resistant gloves is recommended.
<b>Protective Clothing:</b>	Using chemical resistant clothing is recommended.
<b>Protective Equipment:</b>	Eyes            Safety Glasses Body            Lab Coat Respiratory    Dust Respirator. Be sure to use an approved/ certified respirator Hands            Gloves Feet             N/A

#### SECTION: 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid crystalline powder
<b>Odor/Taste</b>	Odorless/Fruity
<b>Specific Gravity:</b>	1.665
<b>Solubility:</b>	Soluble in water



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<b>pH:</b>	2.2 (1% Solution in water)
<b>Flash Point:</b>	Not Applicable
<b>Melting Point:</b>	153°C
<b>Auto ignition Temperature</b>	345°C

#### SECTION: 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Chemically stable, non hazardous material. This material presents no significant reactivity hazard.
<b>Materials to Avoid:</b>	Strong oxidizing agents, Bases, Strong Acids.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Hazardous Combustion or Decomposition Products:</b>	None known.

#### SECTION: 11. TOXICOLOGICAL INFORMATION

<b>Routes of Entry:</b>	Inhalation. Ingestion.
<b>Toxicity to Animals:</b>	Acute oral toxicity (LD50): 3000 mg/kg [Rat].
<b>Chronic Effects on Humans:</b>	May cause damage to the following organs: teeth. <ul style="list-style-type: none"><li>→ Hazardous in case of inhalation (lung irritant).</li><li>→ Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion.</li><li>→ Special Remarks on Toxicity to Animals: LDL[Rabbit] - Route: oral; Dose: 7000mg/kg</li><li>→ Special Remarks on Chronic Effects on Humans: Not available.</li><li>→ Special Remarks on other Toxic Effects on Humans:</li></ul>
<b>Acute Potential Health Effects:</b>	<ul style="list-style-type: none"><li>→ <b>Skin:</b> Causes mild to moderate skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.</li><li>→ <b>Eyes:</b> Causes moderate to severe eye irritation and possible injury.</li><li>→ <b>Ingestion:</b> May cause gastrointestinal (digestive) tract irritation with nausea, vomiting, diarrhea. Excessive intake may cause erosion of teeth and hypocalcemia (calcium deficiency in blood). May affect behavior/central nervous system (tremor, convulsions, muscle contraction or spasticity).</li></ul>

#### SECTION: 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	In Water (LC50) 440 to 706 mg/l 96 hours (Goldfish)
<b>BODS and COD:</b>	BODS is 0.528 mg/kg [5days] COD is 0.728 mg/kg [days]
<b>Products of Biodegradation:</b>	Possibly hazardous short term degradation products are not likely. however, long term degradation products may arise.
<b>Toxicity of the products of Biodegradation:</b>	The product itself and its products of degradation are not toxic.
<b>Special remarks on the Products of Biodegradation:</b>	98% after 2 days

#### SECTION: 13. DISPOSAL CONSIDERATION

Incineration or sanitary landfill in accordance with local, provincial and federal regulations. Check with disposal expert to insure compliance.

#### SECTION: 14. TRANSPORT INFORMATION

<b>General information:</b>	Not controlled under TDG (Canada)
<b>Special provision</b>	N/A



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### SECTION: 15. REGULATORY INFORMATION

<b>WHMIS hazard class:</b>	Not controlled under WHMIS
<b>Regulatory List</b>	CEPA DSL: Citric Acid
<b>HMIS</b>	Not controlled
<b>DSCL (EEC)</b>	Can cause burn
<b>HMIS (USA)</b>	Health:2; Flammability: 1; Reactivity: 0; Personal Protection: (E)

### SECTION: 16. OTHER INFORMATION

Revision Date: October 17, 2011

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### SECTION: 17. DISCLAIMER

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### CERTIFICATE OF ANALYSIS

**Product:** Citric Acid  
**Lot No.:** 16002-A37  
**Manufacturing Date:** Feb 2011  
**Best before:** Feb 2014

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
<b>Appearance:</b>	Solid crystalline powder	Complies
<b>Odor/Taste</b>	Odorless/Fruity	Complies
<b>Specific Gravity:</b>	1.665	Complies
<b>Solubility:</b>	Soluble in water and alcohol	Complies
<b>pH:</b>	2.2 (1% Solution in water)	Complies

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# NEW DIRECTIONS AROMATICS

## CERTIFICATE OF ANALYSIS

**Product:** Citric Acid  
**Lot No.:** 16002-A38  
**Manufacturing Date:** June 2011  
**Best before:** June 2014

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
<b>Appearance:</b>	Solid crystalline powder	Complies
<b>Odor/Taste</b>	Odorless/Fruity	Complies
<b>Specific Gravity:</b>	1.665	Complies
<b>Solubility:</b>	Soluble in water and alcohol	Complies
<b>pH:</b>	2.2 (1% Solution in water)	Complies

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# NEW DIRECTIONS AROMATICS

## CERTIFICATE OF ANALYSIS

**Product:** Citric Acid  
**Lot No.:** 16002-A39  
**Manufacturing Date:** June 2011  
**Best before:** June 2014

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
<b>Appearance:</b>	Solid crystalline powder	Complies
<b>Odor/Taste</b>	Odorless/Fruity	Complies
<b>Specific Gravity:</b>	1.665	Complies
<b>Solubility:</b>	Soluble in water and alcohol	Complies
<b>pH:</b>	2.2 (1% Solution in water)	Complies

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