



SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier CITRIC ACID		Product Use Laboratory use	
Chemical formula C ₆ H ₈ O ₇		Product code CP-0142	Molar weight 192,12
Chemical name / Commercial name / Synonymous 2-HYDROXY-1,2,3-PROPANETRICARBOXYLIC ACID, Bêta-HYDROXYTRICARBALLYLIC ACID, ACILETTEN, CITRO, CITRETTEN, FEMA No. 2306			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
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Emergency phone	418-660-8666 Lun-Ven 8h-16h		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 3/4/2024	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Tooth erosion. Vomiting. Stomach pain. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Not applicable.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
Specific hazards of the dangerous product	Anhydrous citric acid may react violently or even explode on contact with nitric or perchloric acids, strong bases and metal nitrates. The risks are increased when these mixtures are heated. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnal precautions, protective equipment	Evacuate personnel to safe areas. Pick up with a shovel or broom, taking care not to scatter dust. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container provided for the disposal of hazardous materials. Use a respirator as needed. Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Protect from the sun's rays. Keep container tightly closed in a dry and well-ventilated place.
Methods of handling	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Control parameters	Value	
Citric acid	77-92-9	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Ventilation	Use fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Poudre cristalline de couleur blanche-
Odour	inodore.
Odour threshold	Donnée non disponible-
pH	1.8 à env. 50 g/L à 25°C.
Melting point / Freezing point	153 -159°C
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	8%
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Vapour density	Data not available
Relative density	1.665g/ml
Solubility	Soluble dans l'eau: 383 g/l à 25 °C.
Partition coefficient water/n-octanol	log Pow : 1.639 à 20°C-
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Moisture sensitive.
Possibility of hazardous reactions	May react violently with incompatible substances. May form combustible dust concentrations in the air.
Conditions to avoid, including static discharge, shock or vibration	Avoid moisture. Avoid contact with incompatible materials.
Incompatible materials	Oxidizing agents, reducing agents and bases, nitrates. Zinc, copper, aluminum and their alloys.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

CITRIC ACID

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation that may cause eye damage.
- Skin	Severe irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, dizziness, headache, watery eyes, cough, dyspnea, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Gastrointestinal disorders, cramps, enteritis, diarrhea, headache, dizziness, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, nervous disorders, respiratory allergy, watery eyes, dizziness, cough, dyspnea, laryngitis, loss of appetite, fatigue, convulsions, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 5,400 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50: Leuciscus idus melanotus: 440 mg/l - 48 h. Toxicity to daphnia and other aquatic invertebrates: Static test: Daphnia magna (Water flea): 1535 mg/l - 24 h.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Data not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Serious eye damage/ Eye irritation category 2A
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SECTION 16 - OTHER INFORMATION

Further information

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. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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