



SAFETY DATA SHEET

1. IDENTIFICATION

NAME OF PREPARATION OR SUBSTANCE: Citric Acid – Anhydrous
SUPPLIER NAME: YellowBee Packaging and Supplies Inc.
SUPPLIER ADDRESS: #106 2880 107 Ave SE
Calgary AB T2Z3R7
Canada
TELEPHONE NUMBER: (587) 352 3929
RECOMMENDED USE: Domestic and Industrial

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Odorless, colorless translucent crystals with strong acidic taste. Citric acid is a skin and mucous membrane irritant and an eye irritant. It may cause allergic reactions in some individuals.

MOST IMPORTANT HAZARD:

Irritating to eyes.

POTENTIAL HEALTH EFFECTS:

INHALATION:

May cause mucous membrane irritation with sore throat, coughing and shortness of breath.

EYE CONTACT:

May cause irritation with redness, pain, possible eye burns, conjunctivitis, ulceration and permanent cloudiness.

SKIN CONTACT:

May cause irritation with swelling, redness and pain. May cause acute gastrointestinal irritation with abdominal pain.

INGESTION:

Repeated or prolonged skin contact may result in dermatitis. Prolonged or repeated eye contact may result in conjunctivitis. Long term oral overexposure may cause damage to tooth enamel.

CHRONIC:

None

CARCINOGEN STATUS:

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME OF THE MATERIAL: 2-hydroxy-1,2,3-propane tricarboxylic acid
CHEMICAL FORMULA: C₆H₈O₇
CHEMICAL FAMILY: Organic Acid
SYNONYMS: Citric Acid, Beta-hydroxytricarboxylic acid
COMPOSITION: 100% Citric Acid Anhydrous
CAS No.: 77-92-9
EC No.: 201-069-1
European Food Additive: E330
HAZARDOUS IMPURITIES: None

4. FIRST AID MEASURES

GENERAL ADVICE: Consult a physician.



MAJOR EFFECTS OF EXPOSURE:

INHALATION:

SKIN CONTACT:

EYE CONTACT:

INGESTION:

PROTECTION OF FIRST-AIDERS:

Irritating to eyes and skin.

Move to fresh air.

Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

Rinse immediately with plenty of water and seek medical advice.

Drink plenty of water. Do not induce vomiting. Consult a physician if necessary

Use personal protective equipment.

5. FIRE FIGHTING MEASURES

FLASH POINT:

FLAMMABLE LIMITS:

AUTOIGNITION TEMPERATURE:

SUITABLE EXTINGUISHING MEDIA:

EXTINGUISHING MEDIA WHICH MUST

NOT BE USED FOR SAFETY REASONS:

HAZARDOUS DECOMPOSITION PRODUCTS:

SPECIAL PROTECTIVE EQUIPMENT

FOR FIREFIGHTERS:

SPECIFIC METHODS:

Not Applicable

Lower 8 gm/FT3

Upper 65 gm/FT3

1010°C / 1850°F

Water, water spray, dry powder, foam, carbon dioxide (CO₂), remove containers if possible. Cool container exposed to fire with water spray.

None

Carbon oxides

Use personal protective equipment including self-contained breathing apparatus when fighting fire in enclosed area.

Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

GENERAL:

Wear dust respirator and protective clothing. Keep unnecessary personnel away. Sweep or vacuum into closed containers for disposal. Dispose in compliance with local, state, and federal regulations.

7. HANDLING & STORAGE

HANDLING:

STORAGE TEMPERATURE:

GENERAL:

INCOMPATIBLE PRODUCTS:

EMPTY CONTAINERS:

Avoid contact with eyes and prolonged contact with skin. Avoid breathing large amounts of dust. Wash away splashes and spillages with water.

Ambient storage pressure: atmospheric

Store in cool dry area away from incompatible materials and protected from moisture. Protect containers from damage.

Incompatible with strong bases and oxidizing agents

Empty containers retain product residue and vapors.

Observe all label precautions even after container is emptied. Do not reuse unless thoroughly cleaned.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Provide general dilute ventilation.

EXPOSURE LIMIT(S)

None established for this ingredient, use OSHA PEL, ACGIH TLV for Nuisance dusts of 5 mg/ m³.

PERSONAL PROTECTION EQUIPMENT:

RESPIRATORY PROTECTION:

NIOSH approved dust respirator

HAND PROTECTION:

Gloves

EYE PROTECTION:

Safety glasses

SKIN AND BODY PROTECTION:

Lightweight protective clothing

HYGIENE MEASURES:

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL & CHEMICAL PROPERTIES

FORM:

Crystalline powder

COLOR:

Colorless / white

ODOR:

None

PH (5 % SOLUTION):

1.8

VAPOR PRESSURE:

3.70E-009mm Hg@25°C

VAPOR DENSITY:

Not applicable

BOILING POINT:

175°C

EVAPORATION RATE:

Essentially 0

COEFFICIENT OF WATER/OIL DISTRIB

LOG P (OCT):

-1.72 (measured)

LOG P (OCT):

-1.25 to -1.80 (calculated)

MELTING POINT/RANGE:

153 °C

DECOMPOSITION TEMPERATURE:

> 170 °C

RELATIVE DENSITY:

1,665 g/cm³

BULK DENSITY:

650 - 950 kg/m³

SOLUBILITY, WATER SOLUBILITY (25 °C):

576 g/kg

SOLUBILITY IN OTHER SOLVENTS,

ALCOHOL (25 °C):

383 g/l

MOLECULAR WEIGHT:

192.12

10. STABILITY & REACTIVITY

STABILITY:

Stable at normal conditions.

CONDITIONS TO AVOID:

Avoid dust formation and moisture. Take precautionary measures against static discharges.

MATERIALS TO AVOID:

Incompatible with strong bases and oxidizing agents.

HAZARDOUS POLYMERIZATION:

Does not occur.

CORROSION:

May corrode metals. 316 Stainless Steel recommended for handling.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

LD50/p.o./rat 11,700 mg/kg

LD50/i.p./rat 885 mg/kg

LD50/p.o./mouse 5,040 mg/kg

LD50/l.p./mouse 961 mg/kg

LOCAL EFFECTS

Irritating to eyes and skin

CHRONIC TOXICITY

None

HUMAN EXPERIENCE

Health injuries are not known or expected under normal use.



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12. ECOLOGICAL INFORMATION

MOBILITY:	Completely soluble
PERSISTENCE AND DEGRADABILITY:	
CHEMICAL OXYGEN DEMAND:	(COD) = 728 mg O ₂ /g
BIOLOGICAL OXYGEN DEMAND/5 DAYS:	(BOD) = 528 mg O ₂ /g
READILY BIODEGRADABLE:	98% after 2 days
BIOACCUMULATION:	None
ECOTOXICITY EFFECTS:	Toxicity to fish (LC50/96h/goldfish) = 440-706 mg/Toxicity to bacteria(EC0) = >10,000 mg/l

13. DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES/UNUSED PRODUCTS Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environmental agency for specific rules).

14. TRANSPORT INFORMATION

Not Regulated.

Not classified as dangerous according to TDG (Transportation of Dangerous Goods) and US DOT (Department of Transportation).

15. REGULATORY INFORMATION

Citric acid is generally regarded as safe (GRAS) by USA FDA. 21 CFR 184.1033

Meets the criteria for hazardous material as defined by OSHA Hazard Communication Standard 21 CFR 1910.1200.

The material is listed on the TSCA Inventory List.

CERCLA (Comprehensive Response Compensation, and Liability Act): Not hazardous

SARA Title III (Superfund Amendments and Reauthorization Bill): Not Considered Hazardous

Foreign Inventory Status

Canadian DSL (Domestic Substance List) WHMIS – Class E

IDL – Citric Acid (CAS-No. 77-92-9) is listed on the Ingredient Disclosure List

DSL – Citric Acid (CAS-No. 77-92-9) is listed on the Domestic Substance List

16. OTHER INFORMATION

HMIS* Rating Health = 1, Fire = 0, Reactivity = 0
0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe

*Hazardous Materials Identification System of the National Paint and Coating Association.

Keep away from children and pregnant women.

The information provided above is intended only as a guide to the appropriate precautionary handling of the material by properly trained personnel using this product. It is the responsibility of the customer and user to ensure it has in place provisions for the safe and proper handling of the material. Although YellowBee Packaging and Supplies Inc. believes the above information to be accurate based on the information available to YellowBee, it is the responsibility of the customer and user of the material to perform its own investigation and due diligence prior to use to verify that the product purchased from YellowBee meets their quality requirements and is appropriate for the use to which the product is to be put. Use and purchase of this material is subject to YellowBee Packaging and Supplies Inc. standard terms and conditions, which supersede any conflicting terms contained on Buyer's purchase order or any document or instrument supplied by Buyer.



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