THE CANDLEMAKERS STORE

Safety Data Sheet

SDS No:	
Version No:	003 2017-10-19
Order No:	

Emergency Assistance

For emergency assistance involving chemicals call
Chemtrec - (800) 424-9300

ISSUE DATE: 2017-10-19

CITRIC ACID, ANHYDROUS

CAS – N°: 77-92-9

FORMULA: $C_6H_8O_7$ **M. W. : 192,13**

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT NAME	Citric Acid, Anhydrous, FCC, USP
SYNONYMS	2-Hydroxy-1, 2, 3-propanetricarboxylic acid or 2-hydroxypropane-1, 2, 3-tricarboxylic acid
INTERNAL PRODUCT CODE	**136XX, 13883, 142XX, 14384**
RELEVANT IDENTIFIED USES OF THE SUBSTANCE AND USES ADVISED AGAINST	Citric acid can be used in food as food additives and also in technical application as clarifying agent, water softener, buffer, foam booster and stabilizer, complexion agent and as an intermediate in production of organic chemicals, cosmetic products, cleaning products, nontoxic plastics, plasticizer for not toxic plastics, petrochemical industry, building industry, chelated fertilizers, citric acid derivates and pharmaceutical ingredients.

2. HAZARDS IDENTIFICATION	
CAS Nº.	77-92-9
GLOBAL HARMONIZATION SYSTEM - GHS	Eye irritant - Category 2 (2A-2B)
CLASSIFICATION REGULATION (EC) Nº 1272/2008	Eye irritant - Category 2, Hazard Statement H319
PRECAUTIONARY STATEMENTS - PREVENTION	P264: Wash the body parts to be washed after handling. P280: Wear protective gloves / protective clothing / protective equipment for eye / face
PRECAUTIONARY STATEMENTS - RESPONSE	P305 + P351 + P338: In case of contact with eyes, rinse with water for several minutes. Remove contact lenses when present and can be done carefully. Continue rinsing. P337 + P313: If eye irritation persists, consult a physician.
PRECAUTIONARY STATEMENTS – STORAGE / HANDLING	Avoid breathing dust. Avoid contact with eyes and skin
PRECAUTIONARY STATEMENTS - DISPOSAL	Please note the local environmental legislation regarding the disposal for proper disposal.
LABELLING ACCORDING TO REGULATION Nº 1272/2008	Pictogram: GHS07 
LABELLING ACCORDING TO DIRECTIVE Nº 67/548/EEC OR Nº 1999/45/EC	Pictogram: Xi Irritant 
PHRASE – R 36 **PHRASE – R 38**	Eye irritant Skin irritant
PHRASE – S 24/25	Avoid contact with eyes and skin
PHRASE – S 26 **PHRASE – S28**	In case of contact with eyes rinse immediately with plenty of water and consult physician as soon as possible. In case in contact with skin rinse with plenty of water.
PHRASE S – 36/37/38	Wear a suitable protective: clothing / gloves / goggles / disposable mask.
OTHER HAZARDS:	None known
SIGNAL WORD	Warning

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3. COMPOSITION / INFORMATION ON INGREDIENTS	
CHEMICAL FAMILY:	Organic acid
IUPAC NAME	2-Hydroxy-1, 2, 3-propanetricarboxylic acid or 2-hydroxypropane-1, 2, 3-tricarboxylic acid
COMERCIAL NAME:	Citric acid Anhydrous, citric acid
CAS N°	77-92-9
EINECS N°	201-069-1
EC Nº	
E-NUMBER	E 330
MOLAR WEIGHT	192.13 g/mol
IMPURITIES	None known
COMPOSITION	Citric Acid: NLT 99,5% and NMT 100,5% of $C_6H_8O_7$, on the anhydrous basis; Water: NMT 0,5% w/w
HAZARDOUS COMPONENTS (ACCORDING TO REGULATION (EC) Nº 1272/2008)	Citric Acid: NLT 99,5% and NMT 100,5% of $C_6H_8O_7$, on the anhydrous basis; CAS Nº: 77-92-9 Classification: Eye and Skin irritant, Category 2, H319.
HAZARDOUS COMPONENTS (ACCORDING TO REGULATION Nº 1999/45/EC)	Citric Acid: NLT 99,5% and NMT 100,5% of $C_6H_8O_7$, on the anhydrous basis; CAS Nº: 77-92-9 Classification: Xi, irritant; R36

4. FIRST AID MEASURES.	
ROUTE(S) OF ENTRY	Inhalation; skin, eye, ingestion
HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE	
ACUTE INHALATION	If inhaled, remove to fresh air and call a physician for instructions. In case of difficulty breathing, use oxygen assistance. Get medical advice/attention if condition is critical
ACUTE SKIN CONTACT	This product could be skin irritant resulting in reddening, stinging, and swelling when contact is frequent or skin sensible. Wash with plenty water. If condition is critical get medical advice/attention.
ACUTE EYE CONTACT	This product is irritating to the eyes resulting in stinging, reddening, tearing and swelling. Wash with plenty water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
ACUTE INGESTION	If swallowed, wash the mouth plenty of water and give potable water to drink. If person is unconscious **DO NOT** give anything to drink. **DO NOT** induces vomiting. Contact the local services for medical attention/advisers for instructions.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE	Persons with pre-existing eye or skin disorders may be more susceptible to the effects of this product.
FIRST AID FACILITIES:	Eyewash station with potable water should be available to rinse eyes or skin. Make available eyewash station and safety showers close to the work place.

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5. FIRE - FIGHTING MEASURES	
EXTINGUISHING MEDIA.	Water spray, carbon dioxide, dry chemical powder.
ESPECIFIC HAZARDOUS	This is a solid organic acid and can burn under adequate temperature. High dust concentration would be hazardous in closed areas and direct flame. Burning of product could produce irritant/toxic fumes as monoxide or dioxide of carbon.
PERSONAL PROTECTION	Firemen should wear complete personal protection equipment, including portable self-contained breathing system.
HAZCHEM CODE	None known.

6. ACCIDENTAL RELEASE MEASURES	
PERSONAL PROTECTION AND CAUTION	Use proper personal protective equipment as indicated in Section 8. Avoid dust formation. Ensure acceptable ventilation in the handling area. Wash the hands after use and remove contaminated clothing and wash before reuse.
EMERGENCY PROCEDURES	Avoid dust formation. Turn-off the electric and heat sources. Take precautionary measures against static discharges. Avoid contact with eyes and skin. Keep the people off of the emergency areas. Clean up the residues of material immediately and ensure adequate ventilation of affected areas.
ENVIROMENTAL PRECAUTIONS	Avoid using water over spills or leaks. Spills or leaks may be neutralized carefully with lime. The waste disposal repeatedly product in water or air can cause damage to the environment. Avoid generating dusty due to a lot of fine particles in the air might cause explosion. During the handling of product eliminate all ignition sources. Dispose of in a manner consistent with your local legal regulations.
METHODS AND MATERIALS FOR CONTAINMENT	Clean up spills immediately with a vacuum or sweep up material and place into a suitable disposal container. Provide adequate ventilation in the workplace and warehouse. Confining the contaminated areas and contain the spill into the containers and dispose the contaminated product according to the environmental legislation in your country.

7. HANDLING AND CONDITION FOR SAFE STORAGE.	
HANDLING PRECAUTIONS	Wear a security personal protective elements Avoid dust formation. Take precautionary measures against static discharges. Wash the hands after use and remove contaminated clothing and wash before reuse. Avoid contact with eyes and skin. Store in a dry place away from sun light, excessive heat, in original or similar close containers. It is prohibited to eat, drink or smoke during the handling or working this product.
CONDITIONS FOR SAFE STORAGE	Keep citric acid anhydrous tightly closed in a dry and cool place. Storage on pallets and away of water or high relative humidity. Avoid a direct or indirect sunlight and adverse weather conditions for product. Avoid air conveying of powdered product due to potential of static build up. After use reseal package immediately and keep in close container. Do not mix rests of product or lots
PACKAGING MATERIAL	- Polyethylene coated paper bags, 25 kg, 50 lb. - Polyethylene/propylene big bags. 500 kg, 1000kg, 1000 lb, 1500lb, 2000 lb
SPECIAL SENSITIVITY	Keep away to direct or indirect sunlight, heat and adverse weather conditions.
INCOMPATIBLE PRODUCTS:	Strong oxidizing agents, strong bases.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION.	
CONTROL PARAMETERS:	None known. Recommended concentration of dust in the workplace less than 10 mg/m3. The concentration should be monitored in the work ambient and if the recommended exposure limit is exceeded, approved dust respirator should be worn.
ENGINEERING CONTROLS:	Use local ventilation if dusting is a problem. To maintain air levels below the recommended exposure limit may be used mechanical ventilation.
BIOLOGICAL LIMIT VALUES:	None known. Biological limit allocated**.**
PERSONAL PROTECTION REQUIREMENTS.	**Eyes protection:** Chemical safety glasses.
	Skin protection: Rubber or vinyl gloves and long sleeved shirts and pants to minimize skin contact. **Respiratory protection:** Under recommended conditions of use, respirator protection is not required. **Hygiene rules**: Employees must washing their hands and face before and after eating or drinking. **Clothing and footwear**: coveralls, trousers, long sleeved shirt, closed in shoes and/or safety footwear.
	Protective workplace Measures: Emergency showers and eye wash stations should be made available. Educate and train employees in the safe use and handling of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL FORM	Crystals
APPEARANCE	Free flowing crystals or powder.
COLOR	White
TASTE	a strong acid taste
ODOR	Odourless or maple lactone odour
ODOR THRESHOLD	8 ppm (furfural alcohol as odour reference)
pH	2,2 (1% solution)
BOILING POINT	Not Applicable (> 153 °C decomposition)
MELTING / FREEZING POINT	153 °C (with decomposition)
SOLUBILITY IN WATER	58 g/100g at (20°C), Soluble in water, alcohol and moderately soluble in ether.
SOLUBILITY (NON AQUEOUS)	Methyl alcohol: 197g/100g at 19°C, Ethyl alcohol 38,3 g/100g 25°C, Ethyl ether 1,05 g/100g 25°C.
SPECIFIC GRAVITY / DENSITY	Density: 1.542 g/cm^3
BULK DENSITY -TYPICAL-	897 kg/m^3 (granular), 865 kg/m^3 (fine)
% VOLATILE BY VOLUME	Not Applicable
AUTOIGNITION	1010 °C
VAPOR PRESSURE	Not Applicable

10. STABILITY AND REACTIVITY	
REACTIVITY	This is a stable material.
CHEMICAL STABILITY	Complex could be occurred with metals.
HAZARDOUS POLYMERIZATION	It does not occur.
INCOMPATIBILITIES	Reaction with caustic can create heat (exothermic reaction). Solutions are mildly corrosive to carbon steel.
INSTABILITY CONDITIONS	None known.
DECOMPOSITION PRODUCTS	In case of fire CO, CO_2 and other potentially toxic fumes.

11. TOXICOLOGICAL INFORMATION	
TOXICITY	
ACUTE EFFECTS BY.	
INGESTION	Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. Extremely large oral dosages may produce gastrointestinal disturbances. Calcium deficiency in blood may result in severe cases of ingestion.
EYE CONTACT	Highly irritating to the eyes, will cause tearing, stinging, burred vision and redness.
SKIN CONTACT	Causes irritation to skin. Symptoms include redness, itching, and pain
INHALATION	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath
LONG TERM EFFECTS	Chronic or heavy acute ingestion may cause tooth enamel erosion. Prolonged or repeated skin contact may cause defatting leading to dermatitis
CHRONIC TOXICITY	No toxicity data for this specific product, however toxicity data for the hazardous ingredient is listed below.

12. ECOLOGICAL INFORMATION	
ECOTOXICITY	Citric acid is a chemical substance with very favourable ecological profile. HERA Avoid contaminating waterways, drains and sewers. The product forms a moderately acidic aqueous solution and this property may cause environmental effects. It has a high biological oxygen demand and it may cause significant oxygen depletion in aquatic systems. If neutralized, it has low potential to affect aquatic organisms, secondary waste treatment microorganisms and the germination and growth of some plants. When diluted with a large amount of water, this chemical released directly or indirectly into the environment is not expected to have a significant impact.
ECOTOXICITY DATA FOR CITRIC ACID (1)	LC50 Shore Crab (Carcinus maenas) 160 mg/L/48hr LC50 Carp (Leuciscus idus melanotus) 440 – 760 mg/L/48hr ACUTE TOXICITY: ORAL: LD50: 5400 – 5790 mg/kg bw (mouse) / LD50: 11700 mg/kg bw (rat) CHRONIC TOXICITY: NOAEL (10 d) 4000 mg/kg bw/day rats (unidentified gender) GENETIC TOXICITY: Negative CARCINOGENICITY: NTP, OSHA, IARC: not listed REPROTOXICITY: Negative SPECIFIC EFFECTS: NA
MOBILITY	Highly movable in the water and soil. Rapidly degraded in both surface water and soil. HERA.

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13. DISPOSAL CONSIDERATIONS	
SPILL OR LEAK PROCEDURES	Clean by vacuum or broom sweeping, remove to disposal container.
WASTE DISPOSAL METHOD	Cover with soda ash or sodium bicarbonate to neutralize. Mix and add water if necessary. Scoop up slurry and dispose in accordance with existing National state and local environmental control regulations.
ENVIRONMENTAL PRECAUTIONS	Contain the spill and prevent contamination into confined areas, drains and waterways. Avoid generating dust. Carefully scoop up, or shovel up uncontaminated product for re-use. Sweep up contaminated material and seal in properly labeled drums for disposal in an area approved by local contaminated material and seal in properly labeled drums for disposal in an area approved by local authority by-laws. No naked flames. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
DO NOT INCINERATE	The by-products carbon dioxide and monoxide could be hazardous.

14. TRANSPORT INFORMATION	
TECHINICAL SHIPPING NAME	Organic acid
FREIGHT CLASS BULK	Chemicals, NOI
FREIGHT CLASS PACKAGE	Chemicals, NOI, (NMFC 60000)
PRODUCT LABEL	Citric Acid, Anhydrous, FCC, USP
HAZARD CLASS OR DIVISION	Non-Regulated DOT (HM-181) (DOMESTIC SURFACE).
HAZARD CLASS DIVISION NUMBER	Non-Regulated IMO / IMDG CODE (OCEAN)
HAZARD CLASS DIVISION NUMBER	Non-Regulated ICAO / IATA (AIR)
AIR TRANSPORT	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) for transport by air.
ROAD AND RAIL TRANSPORT:	Not classified as Dangerous Goods by UN
MARINE TRANSPORT:	Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
UN NUMBER	NONE
UN PROPER SHIPPING NAME	NONE
CLASS AND SUBSIDIARY RISK(S):	NONE
PACKAGING GROUP	NONE
HAZCHEM CODE	NONE
INITIAL EMERGENCY RESPONSE GUIDE:	NONE
SEGREGATION DANGEROUS GOODS:	NONE

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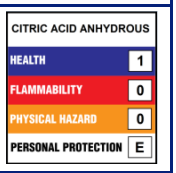
15. REGULATORY INFORMATION.	
OSHA STATUS.	This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
TSCA STATUS.	On TSCA Inventory
CERCLA REPORTABLE QUANTITY.	None
FDA STATUS.	Citric Acid meets the specifications given in the current editions of the FCC and USP; also is in chemical compliance with 21 CFR 184.1033 as a Multiple Purpose Generally Recognized As Safe Food Substance
CALIFORNIA PROPOSITION 65.	Not applicable

16. OTHER INFORMATION	
OTHER CLASSIFICATIONS OF THE SUBSTANCE	
HMIS rating	
HEALTH (BLUE)	**1** (Irritation or minor reversible injury possible)
FLAMMABILITY (RED)	**0** (Materials that will not burn)
PHYSICAL HAZARD (ORANGE)	**0** (Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.)
PERSONAL PROTECTIVE (WHITE)	**E** (Safety glasses, gloves and dust respirator)
NFPA rating	
HEALTH HAZARD (BLUE)	2 (Material that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury)
FLAMMABILITY (RED)	1 (Material must be pre-heated before ignition can occur)
REACTIVITY (YELLOW)	0 (Material that in itself is normally stable, even under fire exposure conditions, and is not reactive with water)
SPECIAL PRECAUTIONS PROTECTIVE GEAR REQUIRED (WHITE)	Acid (Material is an organic acid and it could be corrosive to metals)
SAFETY DATA SHEET ISSUE	**02**
SAFETY DATA SHEET VALID DATE	**2015 08 01**
REVIWED BY	**CITRIC ACID, CITRATES AND SOLUTION QUALITY DEPARTMENT. 2015 08 01.**

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LEGAL NOTICE: The information contained in this Safety Data Sheet guidance and the best of our knowledge and scientific papers about health and safety data of the product and in particular how to safe handling, use, processing, storage, transportation, di sposal and release the product by a properly trained persons. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for particular purpose and their use. This sheet is not a quality specification. This document is intended only as guidance to the appropriate precautionary handling of the material by expert's workers, transporters and manpower related with this product.

We are not responsible to the consequences of an improper handling of this product directly or indirectly by the work men or technical or professional workers.

Our Responsibility for products sold is subject to our standard terms and conditions, our customers claim to be responsible for the proper use of the product and the consequences of its improper use. This MSDS is available to customers in anytime and will be update according to the new knowledge. This data sheet is protected by copyrights.

END OF SAFETY DATA SHEET

THE CANDLEMAKERS STORE

Safety Data Sheet

Notice

The Candlemaker's Store expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from our sales office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process