



Univar USA Inc Safety Data Sheet

SDS No:

Version No:

Order No:

3075 Highland Pkwy, Ste 200, Downers Grove, IL 60515
(425) 889 3400

Emergency Assistance

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

Safety Data Sheet

CITRIC ACID FCC/USP PWD

2.2 LABEL ELEMENTS



GHS07

Signal word:
Warning

Hazard Statement:
Causes serious eye irritation. H319

Precautionary Statement:
Wash hands thoroughly after handling. P264
Wear eye protection. P280

Precautionary Statement. IF IN EYES: P305
Response :
Rinse cautiously with water for several minutes. P351
Remove contact lenses, if present and easy to do Continue
rinsing. P338
If eye irritation persists: P337
Get medical advice/attention. P313

2.3. OTHER HAZARDS

FIRE AND EXPLOSION HAZARD:

May form combustible dust concentrations in air. Possibility of dust explosion. it is recommended that all dust control equipment and material transport systems involved are engineered to prevent conditions contributing to dust explosions. Do not allow dust to accumulate on flat surfaces, on rafters or building structural components. Keep away from all ignition sources including heat, sparks and flame.

SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

- Chemical name Citric acid - Food grade

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	2 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

- CAS number 77-92-9
- EINECS number 201-069-1
- Synonyms 2 - Hydroxy -1,2,3 propanetricarboxylic acid
Acidulant - Citric acid - food additive E330.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- General advise Seek medical attention if irritation develops after first aid application
- Inhalation Move people from the exposure to fresh air.
- Skin contact Wash skin with soap and water.
- Eye contact Remove particulates by irrigating with eye wash solution or clean water, holding eyelids apart.
- Ingestion Wash mouth and flush throat upto the stomach.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

ROUTE(S) OF ENTRY: Skin Contact; Eye Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE SKIN CONTACT: This product is irritating to the skin resulting in reddening, stinging, and swelling.

ACUTE EYE CONTACT: This product is irritating to the eyes resulting in stinging, reddening, tearing, and swelling.

CHRONIC EFFECTS OF EXPOSURE: No applicable information was found concerning any adverse chronic health effects from overexposure to this product.

CARCINOGENICITY: The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE: Persons with pre-existing eye or skin disorders may be more susceptible to the effects of this product.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED.

None Anticipated

SECTION 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Water spray, dry powder, carbon dioxide or media appropriate for surrounding fire. Use of water jet may cause explosive dust conditions.

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	3 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

5.2 SPECIFIC HAZARDS

FIRE AND EXPLOSION HAZARD: Possibility of dust explosion. It is recommended that all dust control equipment and material transport systems involved are engineered to prevent conditions contributing to dust explosions. Do not allow dust to accumulate on flat surfaces, on rafters or building structural components. Use of water jet may cause explosive dust conditions. SEE NFPA 61, Standard for the prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 or later Edition, and other related standards.

5.3 SPECIFIC PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

Wear self-contained breathing apparatus and full protective gear. Use water spray to cool fire exposed containers.

FLAMMABILITY CLASS (OSHA)

Not applicable

HAZARDOUS COMBUSTION PRODUCTS

Carbon dioxide and carbon monoxide

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS

Use personal protective equipment. Wear eye protection. Avoid contact with skin and eyes.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. No special environmental precautions required

6.3 METHODS FOR CLEANING UP

Vacuum or sweep spills. Minimize dust generation.
If washing down spilled area is necessary, use copious amounts of water and control runoff.
Follow local, state and federal regulations for product disposal

6.4 REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment
See Section 13 for disposal information

SECTION 7 : HANDLING AND STORAGE

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	4 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

7.1 PRECAUTIONS FOR SAFE HANDLING

See NFPA 61, Standard for the Prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 Edition, and other related standards. Use with adequate ventilation. Minimize dust generation and accumulation; dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are disturbed.

All dust control equipment and material transport systems involved are engineered to prevent conditions contributing to dust explosions and may require explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Bonding and grounding systems may be required.

Dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) should be designed to limit or prevent leakage of dust into the work area.

Do not allow dust to accumulate on flat surfaces, on rafters or building structural components. Routine housekeeping should be instituted to reduce dust accumulation. Use Avoid dispersal of dust in the air; use vacuum or wet sweeping methods. Do not use compressed air to clean surfaces.

Keep away from all ignition sources including heat, sparks, and flame. Where dust accumulations occur use non-sparking tools.

7.2 CONDITIONS OF SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in a cool dry place. Store in a tightly closed container/bag. The packaging material should have reasonable moisture and air barriers and comply with food regulations.

7.3 SPECIFIC END USE(S)

See overview of the exposure scenario and summary of risk management measures in Appendix 1

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure limits: Nuisance dust (also called particulate not otherwise regulated (PNOR)).

OSHA PEL: 15 mg/ mg/m3 Total dust
5 mg/m3 Respirable dust

ACGIH TLV: 10 mg/m3 Inhalable dust
5 mg/m3 Respirable dust
15 mg/m3 Total dust

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	5 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

- Bulk density Not Established
- Specific gravity 15 °C (1.24 at 59 °F)
- Viscosity Not Established
- Water solubility 590 g/L at 20°C
- Solubility (non aqueous) Methyl alcohol: completely miscible
- Partition coefficient In OCTANOL/ WATER (log value): Log Kow: -0.2 to -1.8
- Dissociation constant pKa: 3.13, 4.76 and 6.4 at 25°
- Evaporation rate Less than 1 (Butyl acetate =1)

9.2 OTHER INFORMATION

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal conditions.

Polymerization will not occur.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Not applicable

10.4 CONDITIONS TO AVOID

Practices which produce dust or disperse finely divided dust in air.

See NFPA 61. Standard for the Prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 Edition, and other related standards.

10.5 INCOMPATIBLE MATERIALS

Oxidizing agents, strong acids

10.6 Hazardous decomposition products:

Nothing unusual

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

- Inhalation ORAL: LD50: 5400 - 5790 mg/kg bw (mouse) / LD50: 11700 mg/kg bw (rat)
DERMAL: LD50 >2000 mg/kg bw rat
- Ingestion No effects known or anticipated.

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	7 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

- | | |
|-------------------------------|---|
| - Skin irritation / corrosion | Sustained exposure in a dusty manufacturing environment may result in mechanical irritation in the creases of the skin, particularly at the fingers, or other drying effects. no health effects known or anticipated. |
| - Eye irritation | Irritating to eyes. |
| - Skin sensitisation | Not sensitizing |
| - Chronic toxicity | Not known or anticipated |
| - Genetic toxicity | Not known or anticipated |
| - Carcinogenicity | Not classifiable as Carcinogen. |
| - Reprotoxicity | Not known or anticipated |
| - Specific effects | Not applicable |

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

LC50 for freshwater fish: 440 mg/l

EC50/LC50 for freshwater invertebrates: 1535 mg/l.

12.2 PERSISTENCE/DEGRADABILITY

Ready biodegradable

12.3 BIOACCUMULATIVE POTENTIAL

Log Kow <3, not bioaccumulative

12.4 MOBILITY IN SOIL

Not applicable

12.5 BPT, vPvB

The substance does not meet the criteria for PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS

None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Follow local, state and federal regulations for product disposal. Not a hazardous waste unless contaminated with hazardous products.

SECTION 14: TRANSPORTATION INFORMATION

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	8 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

International regulations (RID/ADR; RTMDR; IMDG; IATA/OACI): Not classified as dangerous for transport.

DOT shipping label: Non-hazardous

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

According with the version of the Globally Harmonized System of Classification and labeling adopted in the United States and Regulation 1272/2008/EC(CLP): Classified

15.2 CHEMICAL SAFETY ASSESSMENT

US FEDERAL REGULATIONS:

Clean Air Act:

ODS: Not applicable.

SARA (EPCRA) Section 313 (40 C.F.R. § 372.65): Not applicable.

TSCA Status: On TSCA inventory.

STATE REPORTING REQUIREMENTS:

California Proposition 65: Not applicable.

SECTION 16: OTHER INFORMATION

See Hazard Communication Guidance for Combustible Dusts, OSHA 3371-08 2009, U.S. Occupational Safety and Health Administration, <https://www.osha.gov/Publications/3371combustible-dust.html> (accessed 10/8/14)

And

NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for general safe handling and design guidance.

Other classifications of the substance:

TSCA STATUS: On TSCA Inventory.

FDA STATUS: Citrus acid, Anhydrous complies with FDA Regulation 21 C.F.R. § 184.1033;

CALIFORNIA PROPOSITION 65: Not applicable.

HMIS rating:

Health: 1

Flammable: 0

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	9 / *

Safety Data Sheet

CITRIC ACID FCC/USP PWD

Reactivity: 0
(0 = minimal ; 1 = slight ; 2 = moderate ; 3 = serious ; 4 = severe)

Safety Data Sheet according to Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

DISCLAIMER OF LIABILITY

The information in this SDS is collected from reliable sources. However, the information is provided without any warranty, expressed or implied. The conditions or methods of handling, storage, use or disposal of the product might be beyond our control and knowledge. For the avoidance of doubt, we shall in no such circumstances be under any liability in respect of loss, damage or expenses arising from handling, storage, use or disposal of the product by your company and/or your subcontractors. This SDS is only applicable for the product mentioned in the identification chapter and title. If the product is used as a component in another product, this SDS may not be applicable on the composite material.

Annex I

SUMMARY OF RISK MANAGEMENT MEASURES

Safe use has been demonstrated by calculation of risk characterisation ratios where appropriate, while qualitative considerations were stipulated where quantification was not possible. The risk characterisation is based on the following risk management measures:
Exposure scenario „Description „General measures „Specific Human Health risk management measures „Specific Environment risk management measures „
ES1 „Production and intermediate use on production sites „Good working practices, containment and safe handling in line with industry best practice. „(i) Local Exhaust ventilation (LEV)
(ii) Personal Protective Equipment (PPE): Working clothing, protective gloves and safety glasses. Dust masks in areas where dust may be present. In case of open handling of larger quantities or accidental release, a particle mask or respirator with independent air supply is recommended. „(i) Treatment of effluent in waste water treatment plant. „
ES2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17 „Industrial use „
Good working practices, containment and safe handling in line with industry best practice. „(i) Local Exhaust ventilation (LEV) if aerosol mists or dusts are present.
(ii) Personal Protective Equipment (PPE): Working clothing, protective gloves and safety glasses. Dust masks in areas where dust may be present. In case of open handling of larger quantities or accidental release, a particle mask or respirator with independent air supply is

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	10 / 11

Safety Data Sheet

CITRIC ACID FCC/USP PWD

recommended. ,(i) Treatment of effluent in waste water treatment plant. ,,
ES10 ,,Textile industry ,,Good working practices, containment and safe handling in line with
industry best practice. ,(i) Local Exhaust ventilation (LEV) if aerosol mists or dusts are
present.
(ii) Personal Protective Equipment (PPE): Working clothing, ,(i) Treatment of effluent in
waste water treatment plant.
(ii) No direct discharge into the marine environment ,,

Code :	28000104	Effectivity date :	02/26/2015	Revision :	00
		Supersedes :		Latest Revision :	00
		Printed on :	05/13/2015	Page :	11 / 11

Univar USA Inc Safety Data Sheet

For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

Notice

Univar USA Inc. ("Univar") 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 your local Univar 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, Univar makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar's 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