

Product Data Sheet

Citric Acid Anhydrous

Version: PDS Citric Acid Anhydrous Version 08	Issue date: 24/09/2024	Supersedes versions: 18/02/2022
Reason for issue: - Some rounding has been adapted according to the COA: - Colour is shown at 1 decimal place instead of 2 - Assay is shown at 1 decimal place instead of 2 - For Water, the rounding is made at 2 digits instead of 3. - For identification: EP is mentioned as requirement (Note: method has not changed!) - For RCS: FCC is mentioned as requirement (Note: method has not changed!)		PDS 04 82951 Version 07 Citric Acid Anhydrous Med Gran 1200 PDS 04 83087 Version 07 Citric Acid Anhydrous Fine Gran 700 PDS 04 32938 Version 07 Citric Acid Anhydrous Fine Gran 51N PDS 04 32962 Version 07 Citric Acid Anhydrous Fine Gran 16/40 PDS 04 32717 Version 07 Citric Acid Anhydrous Powder

Appearance

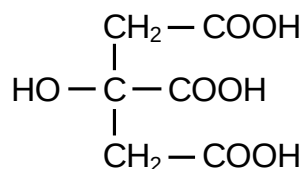
Citric Acid Anhydrous consists of colourless crystals or a white, granular to fine powder, practically odourless, with a strong acid taste.

Product identification

Chemical name: 2-hydroxy-1,2,3-propanetricarboxylic acid

Synonyms: citric acid

CAS No.:	77-92-9
EINECS No.:	201-069-1
E No:	E 330
INCI name:	Citric Acid
Empirical formula:	C ₆ H ₈ O ₇
Molecular mass:	192.12 g/mol



Specifications

Odour	odourless	Barium	< 1 ppm
Identification	meets EP requirements	Copper	< 1 ppm
Water (K. Fischer)	0.00 – 0.20 %	Zinc	< 1 ppm
Extraneous matter	passes test	Iron	< 1 ppm
Colour (500 g/L, T at 405 nm, 1 cm)	98.0 – 100.0 %	Calcium	< 10 ppm
Appearance of solution	meets EP requirements (visual test)	Magnesium	< 1 ppm
Clarity of solution	meets USP requirements (colour: %T)	Aluminium	< 0.2 ppm
Colour of solution	meets USP requirements (colour: %T)	Chlorides	< 5 ppm
Readily carbonizable substances RCS	meets FCC requirements	Sulphates	< 30 ppm
Heavy metals (sum: Cd, Cr, Cu, Pb, Hg, Zn, Ni)	< 1 ppm	Oxalates / oxalic	< 10 ppm

		acid	
Arsenic	< 1 ppm	Sulphated ash / Residue on ignition	meets FCC requirements (NMT 0.05% on 4g)
Lead	< 0.5 ppm	Assay	99.8 – 100.2 % (calculated by water content)
Mercury	< 1 ppm	Tridodecylamine	not applicable for Citribel, only for solvent extracted citric acid

Fineness (ISO standard sieves) / MESH	Product Code
Medium Granular 1200 On No. 16 (1180 µm) max. 5% Through No. 35 (500 µm) max. 10%	04 82951
Fine Granular 700 On No. 25 (710 µm) max. 5% Through No. 50 (300 µm) max. 5%	04 83087
Fine Granular 51N On No. 30 (600 µm) max. 5% Through No. 100 (150 µm) max. 5%	04 32938
Fine Granular 16/40 On No. 40 (425 µm) max. 5% Through No. 100 (150 µm) max. 5%	04 32962
Powder On No. 60 (250 µm) max. 5% Through No. 200 (75 µm) min. 65%	04 32717

Solubility

Citric Acid Anhydrous is very soluble in water, freely soluble in ethanol and sparingly soluble in ether.

Stability and storage

Citric Acid Anhydrous may be stored for 36 months from the date of manufacture in the unopened original packaging (bags and big bags). A relative humidity of 50% and a temperature range of 10 – 30 °C are the most suitable conditions for storage.

Temperatures above 40 °C and a relative humidity above 70% should be avoided in order to prevent caking, especially the Fine Granular 51 N and 16/40 and Powder forms. The stacking of the Fine Granular 51 N and 16/40 and Powder forms for long periods is not recommended.

Stability tests have shown that citric acid anhydrous is chemically stable for at least five years in tightly closed packaging under proper storage conditions.

Uses

- As an acidulant, flavour enhancer and sequestering agent in food applications and beverages, and as a synergist in antioxidant mixtures.
- For cosmetics and personal care products.
- For pharmaceutical preparations, especially effervescent tablets.
- This product is not intended for use in the manufacture of sterile drug products. The purchaser assumes all



responsibility for additional processing, testing, labelling and registration required for such use.

Compendial compliance

Citric Acid Anhydrous meets all requirements of the USP, FCC, Ph. Eur., JP, JECFA and the Commission regulation (EC) No 231/2012 when tested according to the latest versions of these compendia.

Citric Acid Anhydrous is classified as a GRAS (Generally Recognized As Safe) substance following the US Food and Drug Administration (FDA).

Safety

This product is safe for the intended use. Avoid inhalation of dust, contact with eyes and prolonged contact with skin by applying suitable protective measures and personal hygiene.

For full safety information and necessary precautions, please refer to the respective Material Safety Data Sheet.

Legal notice

The information given in this publication is based on our current knowledge and experience and may be used at your discretion and risk. It does not relieve you from carrying out your own precautions and tests. We do not assume any liability in connection with your product or its use. You must comply with all applicable laws and regulations, and observe all third party rights.

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