

Product Information

Citric Acid Anhydrous

General Information

Citric acid is a natural occurring fruit acid, produced commercially by microbial fermentation of a carbohydrate substrate. Citric acid is the most widely used organic acid and pH-control agent in foods, beverages, pharmaceuticals and technical applications.

Chemical Data

Chemical Nomenclature	2-hydroxy-1,2,3-propanetricarboxylic acid
Chem. Formula	C ₆ H ₈ O ₇
Molecular Weight	192.12
pH (5 %)	1.80
Bulk Density	400 - 1300 kg/m ³
REACH No.	01-2119457026-42-0000
EC No.	201-069-1
CAS No.	77-92-9
E-No.	E 330

Specification

Jungbunzlauer citric acid anhydrous is supplied in accordance with the current requirements of the Food Chemicals Codex (FCC), the US Pharmacopeia (USP), the European Pharmacopoeia (Ph. Eur.), and the Commission Regulation (EU) No 231/2012.

Parameters	Jungbunzlauer Limits
Odour	typical, practically odourless
Identification	conforms
Appearance of solution	clear and colourless
Clarity of solution	conforms
Colour of solution	conforms
Readily carbonisable substances	conforms
Oxalic acid / oxalate	< 100 mg/kg
Sulphate	< 100 mg/kg
Heavy metals	< 5 mg/kg
Arsenic	< 1 mg/kg
Lead	< 0.5 mg/kg
Mercury	< 0.5 mg/kg
Calcium	< 30 mg/kg
Iron	< 3 mg/kg
Chloride	< 5 mg/kg
Residue on ignition	< 0.05 %
Sulphated ash	< 0.05 %
Water	< 0.50 %
Assay	99.7 – 100.3 %

Characteristics

Citric acid anhydrous occurs as colourless crystals or as white, crystalline powder. It is an odourless substance with a strongly acidic taste. It is slightly deliquescent in moist air, very soluble in water, freely soluble in ethanol (96%) and sparingly soluble in ether.

Citric acid anhydrous is non-toxic and has a low reactivity. It is chemically stable if stored at ambient temperatures. Although it is not very hygroscopic, caking may occur upon prolonged storage at humidity above 70%. Citric acid anhydrous is fully biodegradable and can be disposed of with regular waste or sewage.

Standard Granulations

Type	Particle size	Limits
Medium N1560	> 1.25 mm < 0.40 mm	max. 5% max. 10%
Medium N1500	> 1.25 mm < 0.20 mm	max. 5% max. 10%
Fine F6000	> 0.63 mm < 0.20 mm	max. 10% max. 10%


Special granulations of Jungbunzlauer citric acid anhydrous are available upon request.

Legal Aspects

In Europe, citric acid anhydrous is listed as generally permitted food additive (E 330) and may be added to all foodstuffs, following the “quantum satis” principle, as long as no special regulation restricts the use.

The US Food and Drug Administration (FDA) has affirmed citric acid as GRAS (generally recognized as safe) and permitted the use in food according to current GMP (CFR § 184.1033), without setting an upper limit.

Citric acid is classified and labelled according to GHS (Globally Harmonized System), implemented by the European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) as follows:

Pictogram:	Signal Word:	Hazard statement H319:	Precautionary statements: P264, P280, P305, P351, P338, P337, P313:
	Warning	Causes serious eye irritation.	Wash hands thoroughly after handling. Wear eye protection. IF IN EYES: 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.

Standard Packaging and Storage

Jungbunzlauer citric acid anhydrous is available in 25 kg net PE bags or in 1000 kg net big bags with inner PE lining.

Citric acid anhydrous may be stored for at least 3 years in original or tightly closed containers. Prolonged storage at temperatures higher than 30°C and/or humidity higher than 70% should be avoided in order to prevent caking.

The information contained herein has been compiled carefully to the best of our knowledge. We do not accept any responsibility or liability for the information given in respect to the described product. Our product has to be applied under full and own responsibility of the user, especially in respect to any patent rights of others and any law or government regulation.
