

SPECIFICATION

Product Name: Citric Acid Anhydrous USP Grade
Chemical Formula: C ₆ H ₈ O ₇
CAS Number: 77-92-9
Molecular Weight: 192.12 g/mol
Appearance: White crystalline powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification: Spectroscopic identification tests, infrared spectroscopy	-	Pass test	To pass test
Assay (Dried basis)	%	99.60%	99.5% - 100.5%
Residue in ignition	%	Pass test	Max. 0.1%
Sulfate	PPM	50 PPM	Max. 150 PPM
Limit of aluminium	PPM	Pass test	Max. 0.2 PPM
Limit of oxalic acid	PPM	Pass test	Max. 360 PPM
Bacterial endotoxins test	IU/mg	Pass test	0.5 IU/mg
Clarity of solution	-	Pass test	The sample solution shows the same clarity as that of water or its opalescence is not more pronounced than standard suspension.
Color of solution	-	Pass test	To pass test
Readily Carbonisable substances	-	Pass test	To pass test
Sterility test	-	Pass test	To pass test

Water determination	%	0.72%	Max. 1.0%
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Physical Properties

- Solubility: Soluble in water. Soluble in ethanol. Soluble in ether.

Shelf Life & Storage

- Shelf Life: 5 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a cool, dry place at 15–30°C. Protect from moisture, excessive heat, and direct sunlight. Keep the container tightly closed in the original, properly labeled container and store in a well-ventilated area to prevent moisture absorption and maintain product quality and stability.

Applications

- Use: Widely used as an acidulant, buffering agent, pH adjuster, chelating agent, and effervescent component in pharmaceutical, nutraceutical, food, and beverage formulations. It helps control pH, enhance flavor, improve product stability, and prevent metal-catalyzed oxidation. It is commonly incorporated into effervescent tablets, powders, syrups, oral solutions, tablets, capsules, beverages, confectionery, and processed foods.
- Dosage: Depends on the food category, desired acidity, flavor profile, and processing requirements.

Packaging

- Standard Packing: 25 Kgs woven pp bag with inner liner or as per customer requirement.
- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.
* Specifications are based on the manufacturer's provided specifications.