

SPECIFICATION

Product Name: Citric Acid Monohydrate (Ensign)
Chemical Formula: $C_6H_8O_7 \cdot H_2O$
CAS Number: 5949-29-1
Molecular Weight: 210.14 g/mol
Appearance: White or almost white crystalline powder.
Odor: Odorless.

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Identification	-	Pass	Pass test
Appearance of solution	-	Pass	Pass test
Assay	%	99.9%	99.5 - 100.5
Water	%	8.64%	7.5 - 8.8
Readily Carbonisable Substances	-	Pass	Pass test
Sulphated Ash (Residue on Ignition)	%	0.02	≤0.05
Sulfate	mg/kg	< 50	≤50
Oxalate	mg/kg	< 50	≤50
Chloride	mg/kg	< 5	≤5
Lead	mg/kg	< 0.1	≤0.1

Arsenic	mg/kg	< 0.1	≤0.1
Mercury	mg/kg	< 0.1	≤0.1
Aluminum	mg/kg	< 0.2	≤0.2
Heavy Metals	mg/kg	< 5	≤5
Bacterial endotoxins	IU/mg	< 0.5	< 0.5

Physical Properties

- Solubility: Very soluble in water. Freely soluble in ethanol.

Shelf Life & Storage

- Shelf Life: 3 years from date of manufacture under recommended storage.

- Storage Conditions: Store in a cool, dry, and well-ventilated area. Keep away from moisture, humidity, direct sunlight, and heat sources. Store in tightly closed original containers. Protect from contamination and strong odors. Recommended storage temperature: below 30°C. Avoid contact with oxidizing agents and alkaline materials.

Applications

- Use: Used as an acidulant, flavor enhancer, and preservative. Used in effervescent tablets, syrups, and oral formulations. Used in vitamin powders, mineral supplements, and health drinks. Used in detergents and descaling formulations for removing mineral deposits. Used as a chelating agent in water treatment and chemical processing systems.

- Dosage: Depends on desired acidity level, Product type, Regulatory standards, Processing conditions and taste profile.

Packaging

- Standard Packing: 25 kg woven PP bags with inner liner and 100 gram 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.