

SPECIFICATION

Product Name: Ascorbic Acid Food Grade
Chemical Formula: $C_6H_8O_6$
CAS Number: 50-81-7
Molecular Weight: 176.12 g/mol
Appearance: White crystalline powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification A) B)	- -	Complies Complies	A) Positive Reaction B) IR
Melting Point	°C	190°C	About 190°C
Specific Rotation	°	+21.0°	+20.5° to +21.5°
Ph (5%)	-	2.3	2.1 to 2.6
LOD	%	Complies	NMT 0.1%
Residue on ignition	%	<0.1%	NMT 0.1%
Assay	%	99.7%	99% to 100.5%
Clarity of solution	-	Complies	Clear
Related substances			
Impurity E	%	<0.2%	≤0.2%
Impurity C	%	<0.15%	≤0.15%
Impurity D	%	<0.15%	≤0.15%

Unspecified impurities	%	<0.10%	≤0.10%
Total impurity other than C,D	%	<0.2%	≤0.2%
Heavy metals	PPM	10 PPM	≤10 PPM

Physical Properties

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

Shelf Life & Storage

- Shelf Life: 2 years from date of manufacture under recommended storage.
 - Storage Conditions: Store in a cool, dry place at 15–25°C. Protect from light, moisture, heat, and air, as ascorbic acid is readily oxidized on exposure. Keep the container tightly closed in the original, properly labeled container and store in a well-ventilated area. Store away from strong oxidizing agents, alkalis, and metal ions (e.g., copper and iron) to maintain product quality and stability.

Applications

- Use: Widely used as a vitamin C source, antioxidant, acidity regulator, preservative, and flour improver in food, beverage, pharmaceutical, and nutraceutical formulations. It helps prevent oxidation, maintain color and flavor, improve product stability, and extend shelf life. It is commonly used in fruit juices, soft drinks, confectionery, bakery products, dairy products, processed foods, dietary supplements, tablets, capsules, powders, and fortified foods.
 - Dosage: Depends on the intended application, product formulation, age, and nutritional requirements.

Packaging

- Standard Packing: 25 Kgs Fiber Drum 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.