

SPECIFICATION

Product Name: Ascorbic Acid IP Grade/ Vitamin C
Chemical Formula: C ₆ H ₈ O ₆
CAS Number: 50-81-7
Molecular Weight: 176.12 g/mol
Appearance: White or almost white crystalline powder or colorless crystals.
Odor: Odorless.

Chemical Composition

Parameter	Unit	Typical value	Specification (Min/Max)
Identification B, C, D	-	Positive Reaction	Positive Reaction
Appearance of solution	-	Clear solution, <BYS ₇	Clear solution, ≤BYS ₇
PH	-	2.3	2.2~2.5
Specific optical rotation	°	+21.0°	+20.5°~+21.5°
Light absorption	-	Pass	Absorbance at the maximum at about 244nm is about 0.56
Oxalic acid	%	< 0.3%	≤ 0.3%
Heavy metals	PPM	< 20 PPM	≤ 20 PPM
Sulphated ash	%	0.02%	≤ 0.1%
Assay	%	99.8%	99.0%~100.5%
Loss on drying (60°/ vacuum over P ₂ O ₅ /3 Hours)	% w/w	Pass	≤ 0.4% w/w

Related Substances			
Impurity C	%	<0.15%	≤ 0.15%
Impurity D	%	<0.15%	≤ 0.15%
Unspecified impurities: each impurity	%	<0.10%	≤ 0.10%
Total of impurities other than C and D	%	<0.2%	≤ 0.2%

Physical Properties

- Solubility: Freely soluble in water. Slightly soluble in ethanol. Slightly soluble in glycerin. Insoluble in oils and fats. Practically insoluble in chloroform and ether.

Shelf Life & Storage

- Shelf Life: 3 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a tightly closed, light-resistant container in a cool, dry, and well-ventilated place, protected from moisture, heat, and direct sunlight. Exposure to air, humidity, and elevated temperatures can accelerate oxidation and reduce potency. Keep containers tightly sealed when not in use.

Applications

- Use: Widely used as a nutritional supplement, antioxidant, and food preservative in pharmaceutical, nutraceutical, food, beverage, and cosmetic applications. It helps protect products from oxidation, supports nutrient fortification, and enhances product stability.
- Dosage: Depends on the intended application, formulation, and target population.

Packaging

- Standard Packing: 25 kg 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.