



TECHNICAL DATA SHEET

Product Name: DL-Malic Acid

CAS Number: 617-48-1

Molecular Formula: C4H6O5

Molecular Weight: 134.09 g/mol

1. Product Description

DL-Malic Acid is a white crystalline powder or colorless crystals, soluble in water, slightly soluble in ethanol, with a sour taste. It is used as an acidulant, flavor enhancer, and chelating agent in food, pharmaceutical, and chemical applications. The product conforms to USP specifications for purity and quality.

2. Specifications (USP compliant)

Product name	DL-Malic acid	
CAS No.	617-48-1	
EC No.	210-514-9	
Molecular formula	C4H6O5	
Molecular weight	134.09	
Melting point	130 °C-132 °C	
Solubility in water	558g/L(20 °C)	
Assay	≥%	99-100.5
Residue on ignition	≤%	0.1
Fumaric acid	≤%	1
Maleic acid	≤%	0.05
Insoluble sub.	≤%	0.1

3. Physical & Chemical Properties

- **Appearance:** White crystalline powder
- **Odor:** Odorless
- **pH (5% aq. solution):** 2.0 – 2.5
- **Melting Point:** 100 – 104°C (decomposes)
- **Solubility:** 1 g in 0.5 mL water at 20°C

4. Storage & Handling

- Store in a **cool, dry, well-ventilated place.**
- Keep container tightly closed.
- Avoid exposure to **moisture, heat, and light.**
- Follow proper personal protective equipment (PPE) protocols: gloves, goggles, lab coat.

5. Packaging

- Standard packaging: 25 kg per bag
- Alternative: Bulk bags or customer-specified packaging
- Shelf life: 24 months from date of manufacture under recommended storage

6. Regulatory & Compliance

- Complies with **USP** (United States Pharmacopeia) standards
- Food grade, pharmaceutical grade, and chemical reagent applications
- Heavy metals and arsenic within USP limits

