



## TECHNICAL DATA SHEET

**Product Name:** DL-Malic Acid

**CAS Number:** 617-48-1

**Molecular Formula:** C<sub>4</sub>H<sub>6</sub>O<sub>5</sub>

**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	C <sub>4</sub> H <sub>6</sub> O <sub>5</sub>
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

