

## Certificate of Quality

**Product Name:** DL-Malic Acid

|               |                                                   |          |                                              |
|---------------|---------------------------------------------------|----------|----------------------------------------------|
| Product Code: | A2430                                             | CAS #:   | 617-48-1                                     |
| Grade:        | High Purity                                       | Formula: | C <sub>4</sub> H <sub>6</sub> O <sub>5</sub> |
| Appearance:   | White powder                                      | MW:      | 134.09                                       |
| Reassay Date: | 3 years after shipping date                       | Lot#:    | See product label                            |
| Storage:      | Store at room temperature. Protect from moisture. |          |                                              |

| TEST                | SPECIFICATION | RESULT |
|---------------------|---------------|--------|
| Purity              | 99%-100.5%    | Passes |
| Residue on Ignition | ≤ 0.1%        | Passes |
| Insolubles          | ≤ 0.1%        | Passes |
| Fumaric Acid        | ≤ 1%          | Passes |
| Maleic Acid         | ≤ 0.05%       | Passes |
| Identification      | Passes        | Passes |

Data Verified by M. He. Verification Date: 2020-01-06

**Limited Usage and Warranty:** For Research Use Only. Not for use in diagnostic procedures. Not for human or animal drug or food use.

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