

# Product Specification

## Malic Acid Standard, 3200 ppm, in 10% (v/v) Ethanol

Lot Number: SAMPLE

Product Number: R4583320

Manufacture Date: N/A

Expiration Date: N/A

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ethyl Alcohol	64-17-5	USP
L-(-)-Malic Acid	97-67-6	Reagent

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	N/A	
Assay (vs. Sodium Hydroxide/Phenolphthalein)	3170-3230 ppm	N/A	84

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R4583320-100A	100 mL natural poly	12 months

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)Katie Schnur  
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."