



MP Biomedicals, LLC

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Certificate of Analysis

Product Description: L-Malic Acid Free Acid
Catalog Number: 102237_
Lot: 8204J_

Formula: C₄H₆O₅
CAS #: 97-67-6
Physical Description: White Powder

Formula Weight: 134.09
Storage: Room Temperature

Test	Specification	Result
Identity Test	Passes	Passes
Purity	≥99%	99.5%
FTIR	Conforms to Standard	Conforms to Standard
Melting Point	~100°C	102.4 - 104.8°C
Optical Rotation (c=2, H ₂ O)	-1.5 to -3.0°	-2.11°

Chloride: 20 ppm max.
Fumaric Acid: 0.060%
Maleic Acid: 0.001% max.
Mesh Size: 20~80 mesh
Residue on ignition: 0.040%
Sulfate: 0.02% max.
Arsenic: 2.0 µg/g max.
Heavy Metals: 10ug/g max.

01/18/2008 - Robert Beattie
MP Biomedicals, LLC.
Technical Director

This is an electronically generated document
mailto:biotech@mpbio.com
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Online Ordering, MSDSs, certificates of analysis and data sheets now available on our web site
Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)