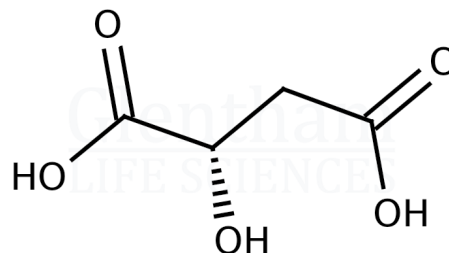


Certificate of Analysis

Product Name L-(-)-Malic acid
Glentham Code GK8399
CAS Number 97-67-6
EINECS 202-601-5
Numéro MDL MFCD00064213
PubChem SID 310275986
Batch Number 453QZL

Molecular Weight 134.09
Molecular Formula $C_4H_6O_5$
Storage Temp. +20°C



Property	Specification	Batch 453QZL
Physical Description	White to almost white powder or crystals	White powder
Solubility (10% in water)	Clear, colourless to very faintly turbid solution	Clear, colourless solution
Specific Optical Rotation ($[\alpha]_{20/D}$)	-5.0 - -8.0 ° (c=10, acetone)	-6.52°
Melting Point	101.0 - 104.0 °C	101.4 - 103.8 °C
Residue on Ignition	≤ 0.1%	0.04%
Water (KF)	≤ 0.5%	0.20%
Assay (Titration)	≥ 99.0%	99.3%

Specification Version v1.1
Manufacture Date 2021-04-13
Re-Test Date 2029-05-11

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

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