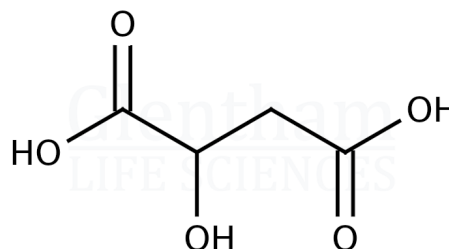


Certificate of Analysis

Product Name DL-Malic acid
Glenthams Code GK7059
CAS Number 6915-15-7
EINECS 230-022-8
MDL Number MFCD00064212
Additional CAS 617-48-1
PubChem SID 310272330
Batch Number 6711MA

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



Property	Specification	Batch 6711MA
Physical Description	White crystalline powder	White crystalline powder
Solubility (10% in water)	Clear, colourless solution	Clear, colourless solution
Specific Optical Rotation	-0.10 - +0.10 °	Conforms
Residue on Ignition	≤ 0.1%	0.006%
Maleic acid	≤ 0.05%	0.02%
Fumaric acid	≤ 1.0%	0.61%
Heavy Metals (as Pb)	≤ 20ppm	≤ 10ppm
Lead (Pb)	≤ 2ppm	Conforms
Arsenic (As)	≤ 3ppm	≤ 0.5ppm
Mercury (Hg)	≤ 1ppm	Conforms
Assay	99.0 - 100.5 %	99.82%

Specification Version v1.0
Manufacture Date 2021-08-04
Re-Test Date 2031-01-18

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

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