



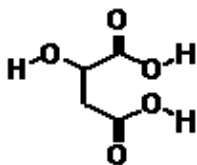
HANGZHOU DINGYAN CHEM CO., LTD

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CERTIFICATE OF ANALYSIS

NO: DYC021311292

Product name	DL MALIC ACID	CAS Number	617-48-1
Molecule Structure		Batch number	20130506
Manuf. Date:	2013-05-06	Exp. Date	2015-05-05
Standard	FCCVII/E296	Report Date	2013-05-07

Items	Standard	Result
Appearance	White or nearly white crystalline powder or granules	Complies
Assay	99%min	99.38%
Melting point	127-132°C	129.2°C
Fumaric acid	1.0% max	0.57%
Maleic acid	0.05% max	0.03%
Water insolubles	0.1% max	0.02%
Sulphated ash	0.1% max	0.04%
Heavy metals	10ppm max	10ppm max
Lead	2ppm max	2ppm max
Arsenic	2ppm max	2ppm max
Mercury	1ppm max	1ppm max
Specific rotation	-0.1° ~+0.1°	0
Conclusion: This goods conforms to the standard of FCCVII/E296.		

Hangzhou Dingyan Chem Co., Ltd.
QUALITY CONTROL:  CHECK: 姚仙娟
Quality Control Signature(s)

INSPECTOR: 刘清风