



Todo Droga

Química Mayorista

CERTIFICATE OF ANALYSIS

DATE : 07/10/2016
CUSTOMER : M CASSAB ARGENTINA
ISEGEN REF. : 016890
D / N NO. : 016890
CONTAINER NO. : MSKU2133862
SEAL NO. : ML-ZA4393995
VESSEL : MOL PRESENCE
MANUFACTURING DATE : 30/08/2016
EXPIRY DATE : 30/08/2018 PROVIDED PRODUCT STORED IN DRY, COOL CONDITIONS AND NOT SUBJECT TO PRESSURE

MATERIAL

DL MALIC ACID - FOOD GRADE (Hydroxysuccinic Acid) – 850um
Molecular mass : 134.1 g/mole CAS : 617-48-1

BATCH NO

7160830

QUANTITY

7000 kg

ANALYSIS	METHOD OF ANALYSIS	SPECIFICATION	RESULTS
Appearance	FCC 10	White or nearly white granules	Complies
Identification	FCC 10	To comply with std. scan	Complies
Assay as Malic Acid	FCC 10	NLT 99.0% and NMT 100.5% of $C_4H_6O_5$	99.57
Test for Malate	Isegen Proc. 1.22.11.2.1	Passes test	Passes
Water	Karl Fischer	NMT 0.3% m/m	0.28
Melting Point	Isegen Proc. 1.22.5.2.2	127 → 132 °C	128.7
Fumaric Acid	FCC 10	NMT 1.0% m/m	0.83
Maleic Acid	FCC 10	NMT 0.05% m/m	0.019
Heavy Metals as Pb	FCC 10	NMT 5 mg/kg	<5
Lead	FCC 10	NMT 2 mg/kg	<2
Arsenic	ICP	NMT 1 mg/kg	<1
Mercury	ICP	NMT 0.1 mg/kg	<0.1
Residue on Ignition (Sulphated Ash)	FCC 10	NMT 0.1% m/m	0.036
Water Insoluble Matter	FCC 10	NMT 0.1% m/m	0.016
Readily Oxidisable Substances	Isegen Proc. 1.22.5.2.16	Passes Test – 3 minutes (min)	Complies
Chlorides	Isegen Proc. 1.22.5.2.17	NMT 40 mg/kg	Complies
Specific Rotation $[\alpha]_D^{25}$	FCC 10	- 0.10° and + 0.10°	Complies
Particle Size Distribution	Isegen Proc. 1.22.5.2.14	NLT 98% thru 850 um	99.56
		NMT 5% thru 150 um	0.02

We confirm that this batch complies with FCC 10, E296 and is GMO and Allergen free

QA REPRESENTATIVE