

CERTIFICATE OF ANALYSIS

PRODUCTS: L-CITRULLINE DL-MALATE 2:1

TESTING DATE: JUL.10,2017

BATCH NO: C2M1170701

MANUFACTURE DATE: JUL.10,2017

QUANTITY: 700KG

EXPIRY DATE: JUL.09,2019

ITEMS	SPECIFICATIONS	RESULTS
Appearance	White crystalline powder	Complies
Assay (On dry basis)	$\geq 98.0\%$	99.5%
Solubility (1g in 20ml water)	Clear	Complies
Specific rotation $[\alpha]_{D20}^{\circ}$	$+17^{\circ} \sim +19^{\circ}$ (C=8, in 6N HCL)	$+18.4^{\circ}$
Chloride (Cl)	$\leq 0.05\%$	$< 0.02\%$
Iron (Fe)	$\leq 10\text{ppm}$	$< 10\text{ppm}$
Heavy metals (Pb)	$\leq 10\text{ppm}$	$< 10\text{ppm}$
Arsenic	$\leq 1\text{ppm}$	$< 1\text{ppm}$
Mercury	$\leq 0.1\text{ppm}$	Complies
Lead	$\leq 3.0\text{ppm}$	Complies
Cadmium	$\leq 1.0\text{ppm}$	Complies
Loss on drying	$\leq 0.20\%$	0.01%
Residue on ignition	$\leq 0.10\%$	0.04%

CONCLUSION: Conform to the specification.

STORAGE: Store in cool and dry place.

SHELF LIFE: Keep away from strong light and heat. 2 years when properly stored.

DATE: JUL.10,2017