

CERTIFICATE OF ANALYSIS

PRODUCT NAME: L-Threonine
CAS NO.: 72-19-5
BATCH NO.: 18/MFM/2068
Molecular Weight: 119.12
EXPIRY DATE: 17 October 2023

TESTS	SPECS	RESULTS
Appearance	White or almost white crystalline powder	Conforms
Assay	99.0 to 101.0%	99.46%
Residue on ignition	<= 0.10%	0.05%
Ammonium (NH ₄)	<= 0.02%	Conforms
Chloride (Cl)	<= 0.02%	Conforms
Sulphate (SO ₄)	<= 0.02%	Conforms
Iron (Fe)	<= 10 ppm	Conforms
Heavy Metals	<= 10ppm	Conforms
Arsenic (As ₂ O ₃)	<= 1ppm	Conforms
Lead (Pb)	<= 3ppm	<= 2ppm
Mercury (Hg)	<= 0.1ppm	Conforms
Cadmium (Cd)	<= 1ppm	Conforms
Loss on Drying	<= 0.2%	0.07%
pH	EP, USP: 5.0 – 6.5, AJI: 5.2 – 6.2	5.7
Specific Optical Rotation	EP, AJI: -29.0 to -27.6°, USP: -29.1 to -26.7°	-27.72°
Organic Impurities	Any individual Impurity: <= 0.5%	Conforms
	Total impurities: <= 2.0%	Conforms
Pharmacopoeia Specifications	Conforms to EP, USP, AJI	Conforms to EP, USP, AJI

* This material is supplied for laboratory use only.

Supplier: Formedium Ltd

Approved by:

For and on behalf of
 FORMEDIUM Ltd Unit 1B
 Hunstanton Commercial Park
 PE36 5JQ England
 (Authorised Signature)

Date: 14 Feb 2018