

Certificate of Analysis

Product Name: L-ASPARAGINE
BioUltra
Product Number: 99979
Product Brand: Fluka
Molecular Formula:
Molecular Mass:
CAS Number:

TEST	SPECIFICATION	LOT BCBC3390 RESULTS
APPEARANCE (COLOR)	WHITE/COLORLESS	WHITE
APPEARANCE (FORM)	FINE CRYSTALS TO CRYSTALS	CRYSTALS
TITRATION (NT) HClO ₄ 0.1M	99.5 - 100.5 %	99.9 %
PURITY (TLC AREA %)	≥ 99.0 %	99.7 %
SPECIFIC ROTATION (20/D)	35.0 ± 0.5 DEGREES	35.1 DEGREES
CONCENTRATION	--	C=5 IN HCL 5M
LOSS ON DRYING	≤ 0.1 %	0.05 %
RESIDUE ON IGNITION	≤ 0.05 %	<0.05%
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS
METAL TRACE ANALYSIS (ICP)	CORRESPONDS TO REQUIREMENTS	PASSED
ALUMINIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
BARIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
BISMUTH (ICP)	≤ 5 MG/KG	< 5 MG/KG
CALCIUM (ICP)	≤ 50 MG/KG	< 50 MG/KG
CADMIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
COBALT (ICP)	≤ 5 MG/KG	< 5 MG/KG
CHROMIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
COPPER (ICP)	≤ 5 MG/KG	< 5 MG/KG
IRON (ICP)	≤ 5 MG/KG	< 5 MG/KG
POTASSIUM (ICP)	≤ 50 MG/KG	< 50 MG/KG
LITHIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
MAGNESIUM (ICP)	≤ 50 MG/KG	< 50 MG/KG
MANGANESE (ICP)	≤ 5 MG/KG	< 5 MG/KG
MOLYBDENUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
SODIUM (ICP)	≤ 50 MG/KG	< 50 MG/KG

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NICKEL (ICP)	≤ 5 MG/KG	< 5 MG/KG
LEAD (ICP)	≤ 5 MG/KG	< 5 MG/KG
STRONTIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
ZINC (ICP)	≤ 5 MG/KG	< 5 MG/KG
ARSENIC TRACES (MHS-AAS)	≤ 0.1 MG/KG	0.05 MG/KG
TOTAL SULFUR AS SO ₄ (ICP)	≤ 50 MG/KG	< 50 MG/KG
CHLORIDE (CL)	≤ 50 MG/KG	<25MG/KG
SOLUBILITY (METHOD)	--	0.396 G IN 30 ML H ₂ O (0.1 M)
APPEARANCE (SOLUTION)	CLEAR COLORLESS	CLEAR COLORLESS
PH	4.0 - 5.5	5.3
RESIDUE (FILTER TEST)	NO RESIDUE	NO RESIDUE
UV - ABS. AT 260 NM	≤ 0.07	0.003
UV - ABS. AT 280 NM	≤ 0.06	0.002

QC RELEASE DATE 06/MAY/10
RECOMMENDED RETEST DATE APR/14



Edeltraud Schwärzler, Manager
Quality Control
Buchs, Switzerland

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