

## Certificate of Analysis

**Product Name:** L-4-HYDROXYPROLINE  
*BioChemika*

**Product Number:** 99982

**Batch Number:** BCBP4214V

**Brand:** Fluka

**CAS Number:**

**Formula:**

**Formula Weight:**

**Quality Release Date:** 14 JAN 2015

**Recommended Retest Date:** DEC 2018

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS OR WHITE	WHITE
APPEARANCE (FORM)	POWDER OR CRYSTALS	CRYSTALS
TITRATION (NT) HClO <sub>4</sub> 0.1M	99.0 - 101.0 %	100.4 %
PURITY (TLC AREA %)	≥ 99.7 %	100.0 %
SPECIFIC ROTATION (20/D)	-76.0 ± 1.5 DEGREES	-76.1 DEGREES
CONCENTRATION	C=5 IN WATER	C=5 IN WATER
SOLUBILITY (COLOR)	COLORLESS	COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR (< 3.5 NTU)	CLEAR
SOLUBILITY (METHOD)	1G IN 10ML WATER	1G IN 10ML WATER
LOSS ON DRYING	≤ 0.1 %	< 0.05 %
SULFATED ASH	≤ 0.1 %	< 0.05 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS
METAL TRACE ANALYSIS (ICP)	CORRESPONDS TO REQUIREMENTS	PASSED
CALCIUM (ICP)	≤ 10 MG/KG	< 10 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
MAGNESIUM (ICP)	≤ 5 MG/KG	< 5 MG/KG
MANGANESE (ICP)	≤ 5 MG/KG	< 5 MG/KG
SODIUM (ICP)	≤ 50 MG/KG	< 50 MG/KG
NICKEL (ICP)	≤ 5 MG/KG	< 5 MG/KG
LEAD (ICP)	≤ 5 MG/KG	< 5 MG/KG

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<b>ZINC (ICP)</b>	≤ 5 MG/KG	< 5 MG/KG
<b>TOTAL SULFUR AS SO<sub>4</sub> (ICP)</b>	≤ 100 MG/KG	< 100 MG/KG
<b>CHLORIDE (CL)</b>	≤ 100 MG/KG	< 100 MG/KG
<b>ION CHROMATOGRAPHY (NH<sub>4</sub><sup>+</sup>)</b>	≤ 100 MG/KG	< 100 MG/KG



Dr. Claudia Geitner  
Manager Quality Control  
Buchs, Switzerland

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.