

CERTIFICATE OF ANALYSIS

Product : **L-TRYPTOPHAN**
 Product number : T0720
 Batch number : 015049
 Date of analysis : 11-06-2019
 Expiry date : 30-06-2024

Packaging and storage : store protected from light

Description	SPECIFICATION	RESULT	UNITS	REMARKS
Description	white to almost white crystalline powder	complies		
Identification	conform	complies		
Appearance of solution	conform	complies		1% in 1M HCl
Specific optical rotation	-33.0 – -30.0	-31.2	°	1% in H ₂ O
Ninhydrin-positive substances	conform	conform	%	HPLC
Impurity A and other related substances	conform	conform	%	HPLC
pH	5.5 – 7.0	6.0		1% in H ₂ O
Chlorides	≤ 200	< 200	ppm	
Sulphates	≤ 300	< 300	ppm	
Ammonium	≤ 200	< 200	ppm	
Iron	≤ 20	< 20	ppm	
Heavy metals	≤ 15	< 15	ppm	
Loss on drying	≤ 0.3	0.1	%	3 hr, 105 °C
Sulphated ash	≤ 0.1	< 0.1	%	
Assay	98.5 – 101.0	100.0	%	dried substance

This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved
 Released by:



Date: 04-12-2019

drs. Q. de Hoog, pharmacist
 Department of Quality Control Duchefa B.V.

The buyer is responsible to test each batch to ensure the product is suitable for their specific purpose.

Duchefa Biochemie B.V.