CERTIFICATE OF ANALYSIS

Product	:	**L-TRYPTOPHAN**
Product number	:	T0720
Batch number	:	013344
Date of analysis	:	13-07-2017
Expiry date	:	31-07-2022
Packaging and storage	:	store protected from light

	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	-31.4	°	1% in H_2O
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_2O
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	0.03	%	105 °C
Sulphated ash	≤ 0.1	0.03	%	
Assay	98.5 – 101.0	100.1	%	dried substance

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

Conclusion: approved
Released by: drs. M. van Wissen, pharmacist
Department of Quality Control Duchefa B.V.

07-12-2017

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

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