CERTIFICATE OF ANALYSIS

Product	:	**TYROSINE (L-)**
Product number	:	T0721
Batch number	:	013981
Date of production	:	03-05-2017
Date of expiry	:	31-05-2020
Packaging and storage	:	store in a well closed container at room temperature

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	white crystalline powder or colourless crystals	complies		
Solubility	soluble in water	complies		0.4 g/l
Identification	conform	complies		IR-spectrum
Appearance of solution	clear and colourless	conform		
Specific optical rotation	-12.3 – -11.0	-11.65	°	dried substance
Ninhydrin positive substances	≤ 0.5	< 0.5	%	
Chloride	≤ 200	< 200	ppm	
Sulphate	≤ 300	< 300	ppm	
Ammonium	≤ 200	< 200	ppm	
Iron	≤ 10	< 10	ppm	
Heavy metals	≤ 10	< 10	ppm	as Pb
Loss on drying	≤ 0.5	< 0.5	%	
Sulphated ash	≤ 0.1	< 0.1	%	
Assay	99.0 – 101.0	99.3	%	

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

Conclusion: approved
Released by:

drs. J. van der Eem, pharmacist
Department of Quality Control Duchefa B.V.

Date: 22-08-2018

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

mail address: Postbus 809 - 2003 RV Haarlem - The Netherlands
visiting address: A. Hofmanweg 71 - 2031 BH Haarlem
telephone: +31(0)23 - 531 90 93
telefax: +31(0)23 - 531 80 27
e-mail: info@duchefa.nl
iban: NL54 INGB 0651 4661 80
bic: INGBNL2A
k.v.k. in Amsterdam: 34073001
website: www.duchefa.com