CERTIFICATE OF ANALYSIS

Product	:	**ASPARAGINE MONOHYDRATE (L-)**
Product number	:	A0725
Batch number	:	013979
Date of manufacturing	:	28-06-2018
Expiry date	:	30-06-2021
Packaging and storage	:	store at room temperature in a well-closed container

	SPECIFICATION	RESULT	UNITS
Appearance	white crystals or crystalline powder	complies	
pH	4.4 – 6.4	4.85	
Specific optical rotation	+34.3 – +36.5	+34.4	°
Loss on drying	11.5 – 12.5	11.85	%
Chloride (Cl)	≤ 200	< 200	ppm
Iron (Fe)	≤ 0.001	< 0.001	%
Transmittance	≥ 98.0	99.2	%
Sulphate (SO_4)	≤ 200	< 200	ppm
Residue on ignition	≤ 0.10	0.035	%
Arsenic (As)	≤ 1	< 1	ppm
Heavy metals	≤ 10	< 10	ppm
Ammonium (NH_4)	≤ 0.10	< 0.10	%
Assay	99.0 – 101.0	99.5	%

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: 20-08-2018

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