

## **CERTIFICATE OF ANALYSIS**

Product : L-ORNITHINE MONOHYDROCHLORIDE

 Product number
 : O1351

 Batch number
 : 011024

 Date of production
 : 09-10-2014

 Date of expiry
 : 31-10-2017

Packaging and storage : in a well closed container

Appearance	SPECIFICATION white crystalline powder	RESULT complies	UNITS	REMARKS
Specific rotation	+23.0 - +25.0	+23.7	0	
Transmittance	≥ 98.0	99.1	%	
Ammonium	≤ 200	complies	ppm	
Sulfate	≤ 200	complies	ppm	
Iron	≤ 10	complies	ppm	
Heavy metals	≤ 10	complies	ppm	as Pb
Arsenic	≤ 1	complies	ppm	
Loss on drying	≤ 0.2	0.15	%	
Other amino acids	not detectable	complies		HPLC
Residue on ignition	≤ 0.10	0.04	%	
рН	5.0 - 6.0	5.2		
Assay	99.0 - 101.0	99.3	%	

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.

Date: 11-02-2015

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 Netherlandstelephone: +31(0)23 - 531 90 93iban: NL54 INGB 0651 4661 80k.v.k. in Amsterdam: 34073001visiting address:A. Hofmanweg 71 - 2031 BH Haarlemtelefax: +31(0)23 - 531 80 27bic: INGBNL2Awebsite: www.duchefa.com