

## CERTIFICATE OF ANALYSIS

Product : **L-PROLINE**  
 Product number : P0717  
 Batch number : 010254  
 Date of production : 12-08-2013  
 Date of analysis : 07-10-2013  
 Date of expiry : 31-08-2017

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		
Identification:				
- A (specific optical rotation)	conform	complies		
- B (IR-spectrum)	conform	complies		
- C (TLC)	conform	complies		
Appearance of solution	clear and colourless	complies		
Specific optical rotation	-84.0 – -86.0	-85.2	°	
Ninhydrin positive substances	≤ 0.5	complies	%	
Chloride	≤ 200	< 200	ppm	
Sulfate	≤ 300	< 300	ppm	
Ammonium	≤ 200	< 200	ppm	
Iron	≤ 10	< 10	ppm	
Heavy metals	≤ 10	< 10	ppm	as Pb
Loss on drying	≤ 0.5	0.1	%	
Sulfated ash	≤ 0.1	0.04	%	
Assay	98.5 – 101.0	99.9	%	

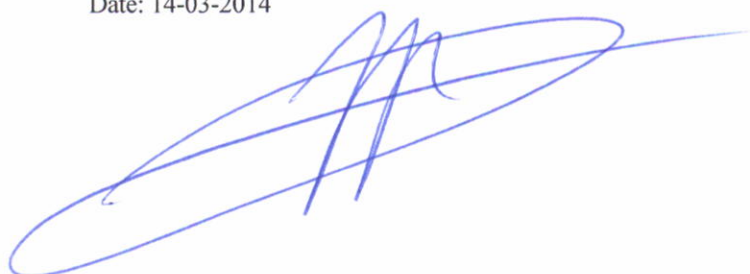
This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved

Released by:

drs. M. van Wissen, pharmacist  
 Department of Quality Control Duchefa B.V.

Date: 14-03-2014



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