

## CERTIFICATE OF ANALYSIS

Product : **MANNITOL (D-)**  
Product number : M0803  
Batch number : 009909  
Date of production : 26-04-2013  
Date of analysis : 26-04-2013  
Date of expiry : 30-04-2018

Packaging and storage : in a well-closed container, protected from light

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	white crystalline powder, odourless, sweet taste	complies		
Identification:				
- A (specific optical rotation)	+23 – +25	+23.9	°	dried substance
- B (melting point)	165 – 170	166 – 167	°C	
- C (IR-spectrum)	conform	complies		
Appearance of solution	clear and colourless	complies		10% in H <sub>2</sub> O
Conductivity	≤ 20	0.9	μS/cm	20% in H <sub>2</sub> O
Reducing sugars	≥ 12.8	> 12.8	ml/5g	0.05M Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>
Related substances	conform	complies		HPLC
Chlorides	conform	complies		
Sulphates	conform	complies		
Sulphated ash	≤ 0.1	< 0.1	%	
Arsenic	≤ 1	complies	ppm	
Lead	≤ 0.5	complies	ppm	
Nickel	≤ 1.0	complies	ppm	
Loss on drying	≤ 0.5	0.1	%	
Assay	98.0 – 102.0	99.0	%	dried substance

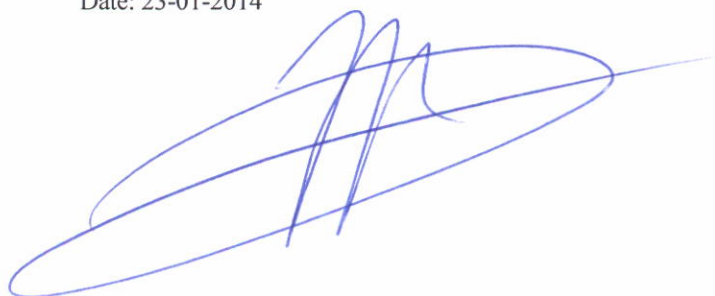
This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved

Released by:

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

Date: 23-01-2014



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