

## CERTIFICATE OF ANALYSIS

Product : **GLUTATHIONE REDUCED**  
 Product number : G1346  
 Batch number : 013513  
 Date of production : xx-11-2017  
 Date of expiry : 30-11-2020

Packaging and storage : store in a well-closed container, store at room temperature

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	white crystalline powder	complies		
Identification	conform	complies		HPLC
Transmittance	≥ 98	complies	%	5% solution
Specific optical rotation	-17.5 – -15.5	-16.3	°	dried substance
pH	2.5 – 3.5	complies		5% water
Enzymatic activity	≥ 98.0	complies	%	
Heavy metals	≤ 10	complies	ppm	Pb
Iron	≤ 10	complies	ppm	
Arsenic	≤ 1	complies	ppm	
Ammonium	≤ 20	complies	ppm	
Sulfate	≤ 48	complies	ppm	
Impurities	≤ 2.0	complies	%	HPLC
Residue on ignition	≤ 0.10	0.03	%	
Loss on drying	≤ 0.5	0.19	%	
Assay	> 98	99.2	%	dried substance

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

Conclusion: approved

Released by: *p/o*

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

Date: 31-01-2018

*S. de Brée*

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