

CERTIFICATE OF ANALYSIS

Product METHIONINE (L-)

Product number M0715 Batch number 018100 Date of manufacturing 08-01-2021 Date of analysis 07-02-2022 Date of expiration 31-01-2025

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

Appearance	SPECIFICATION white or almost white, crystalline powder or colourless	RESULT complies	UNITS	REMARKS
Solubility	crystals soluble in water, very slightly soluble in alcohol	complies		
Identification:				
- A (specific optical rotation)	+22.5 - +24.0	complies	0	
- B (IR-spectrum)	conform	complies		
Appearance of solution	clear and colourless	complies		
pH	5.5 - 6.5	5.71		
Specific optical rotation	+22.5 - +24.0	+22.8	0	
Chloride	≤ 200	complies	ppm	
Sulphate	≤ 300	complies	ppm	
Iron	≤ 10	complies	ppm	
Ammonium	≤ 200	complies	ppm	
Loss on drying	≤ 0.5	0.03	%	$100 - 105^{\circ}$ C
Sulphated ash	≤ 0.1	0.04	%	
Assay	99.0 - 101.0	99.74	%	dried substance

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

Conclusion: approved

Released by: drs. M. van Wissen, pharmacist

Department of Quality Control Duchefa B.V.

Date: 01-11-2023

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