

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek. Certificate Number. 2317548

Catalogue Number	38819
Lot Number	A0484056
Description	D(+)-Glucose, anhydrous, specified according to the requirements of Ph.Eur., USP, BP
CAS Number	50-99-7
Quality Test/Release Date	16/Jun/2026
Suggested retest date	16/Jun/2031
Country of Origin	FRANCE
Declaration of Origin	plant

Result Name	Units	Specifications	Test Value
Appearance (Color)		White to almost white	White
Appearance (Form)		Crystalline powder	Crystalline powder
Identification		Passes test (EP, USP)	Passes test (EP, USP)
Specific optical rotation		+52.5° to +53.3° (20°C, 589 nm) (C=10, H <sub>2</sub> O/dilute NH <sub>3</sub> )	+53° (20°C, 589 nm) (C=10, H <sub>2</sub> O/ dilute NH <sub>3</sub> )
Specific optical rotation		(Anhydrous substance)	(Anhydrous substance)
Specific optical rotation		+52.6° to +53.2° (20°C, 589 nm) (C=10, 0.012N NH <sub>4</sub> OH)	+53° (20°C, 589 nm) (C=10, 0.012N NH <sub>4</sub> OH)
Assay	%	97.5 to 102.0 (Anhydrous substance)	100.1 (Anhydrous substance)
Appearance of solution		(EP) Passes test	(EP) Passes test
Color of solution		(USP) Passes test	(USP) Passes test
Conductivity	µS/cm	=<20	=<20
Related substances	%	=<0.4 (sum of impurities A and B)	=<0.4 (sum of impurities A and B)
Related substances	%	=<0.2 (impurity C)	=<0.2 (impurity C)
Related substances	%	=<0.15 (impurity D)	=<0.15 (impurity D)
Related substances	%	=<0.10 (unspecified impurities)	=<0.10 (unspecified impurities)
Related substances	%	=<0.5 (total impurities)	=<0.5 (total impurities)
Dextrin		(EP, USP) Passes test	(EP, USP) Passes test
Soluble starch, sulfite	ppm	=<15 (EP)	=<15 (EP)
Soluble starch, sulfite		(USP) Passes test	(USP) Passes test
Sulfated ash	%	=<0.1 (1 g, 600°C)	=<0.001 (1 g, 600°C)
Chloride (Cl)	%	=<0.018	=<0.018
Sulfate (SO <sub>4</sub> )	%	=<0.025	=<0.025
Arsenic (As)	µg/g	=<1	=<1
Acidity		(USP) Passes test	(USP) Passes test
Loss on drying	%	=<0.5 (1 g, 105°C, 16 h)	0.07 (1 g, 105°C, 16 h)
Water	%	=<1.0 (K.F.)	0.1 (K.F.)

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.



Geert Torfs  
Supervisor, QC

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.