

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek Global  
 Certificate Number: CERT-0120633

Catalogue Number	D19
Lot Number	256597
Description	DEXTROSE (D-GLUCOSE), ANHYDROUS USP/EP/BP/JP
CAS Number	50-99-7
Quality Test/Release Date	21/May/2026
Suggested retest date	31/Oct/2030
Country of Origin	China
Declaration of Origin	Organic - Plant
BSE/TSE	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystalline powder
Japanese Pharmacopeia Grade - ACIDITY	PASS/FAIL	IN PASS TEST	PASS TEST
Japanese Pharmacopeia Grade - ARSENIC	ppm	<= 1.3	<1.3
Japanese Pharmacopeia Grade - ASSAY	%	>= 99.5	100.0
Japanese Pharmacopeia Grade - CHLORIDE	%	<= 0.018	<0.018
Japanese Pharmacopeia Grade - CLARITY & COLOR OF SOLUTION	PASS/FAIL	IN PASS TEST	PASS TEST
Japanese Pharmacopeia Grade - DEXTRINS	PASS/FAIL	= PASS TEST	PASS TEST
Japanese Pharmacopeia Grade - HEAVY METALS	ppm	<= 4	<4
Japanese Pharmacopeia Grade - IDENTIFICATION (ALL LISTED)	PASS/FAIL	IN PASS TEST	PASS TEST
Japanese Pharmacopeia Grade - LOSS ON DRYING PER JP	%	<= 1.0	0.11
Japanese Pharmacopeia Grade - RESIDUE ON IGNITION	%	<= 0.1	<0.1
Japanese Pharmacopeia Grade - SOLUBLE STARCH, SULFITES	PASS/FAIL	IN PASS TEST	PASS TEST
Japanese Pharmacopeia Grade - SULFATE	%	<= 0.024	<0.024
N/A - APPEARANCE OF SOLUTION (EP/BP)	CLEAR SOLUTION	IN CLEAR SOLUTION	CLEAR SOLUTION
N/A - ASSAY (ANHYDROUS SUBSTANCE) (EP/BP)	%	Inclusive Between 97.5 - 102.0	99.3
N/A - DEXTRINS (EP/BP)	PASS/FAIL	IN PASS TEST	PASS TEST
N/A - DISREGARD LIMIT (EP/BP)	%	<= 0.05	<0.05
N/A - EP/BP CONDUCTIVITY (EP/BP)	uS/cm	<= 20	9
N/A - EPSOLUBILITY (EP/BP)	FREELY SOL. IN WATER	IN FREELY SOLUBLE IN WATER	FREELY SOLUBLE IN WATER
N/A - IDENTIFICATION (ALL LISTED) (EP/BP)	PASS/FAIL	IN PASS TEST	PASS TEST
N/A - IMPURITY C (EP/BP)	%	<= 0.2	<0.2
N/A - IMPURITY D (EP/BP)	%	<= 0.15	<0.15
N/A - IMPURITY SUM OF A AND B (EP/BP)	%	<= 0.4	<0.4
N/A - SOLUBLE STARCH, SULFITE (EP/BP)	ppm	<= 15	<15
N/A - TOTAL IMPURITIES (EP/BP)	%	<= 0.5	<0.5

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.

N/A - TOTAL UNSPECIFIED IMPURITIES (EP/BP)	%	<= 0.10	<0.1
N/A - WATER (EP/BP)	%	<= 1.0	<1.0
USP Grade - ASSAY	%	Inclusive Between 97.5 - 102.0	100.0
USP Grade - COLOR AND CLARITY OF SOLUTION	PASS/FAIL	IN PASS TEST	PASS TEST
USP Grade - CONDUCTIVITY	uS/cm	<= 20	9
USP Grade - DEXTRIN	PASS/FAIL	IN PASS TEST	PASS TEST
USP Grade - IDENTIFICATION (ALL LISTED)	PASS/FAIL	IN PASS TEST	PASS TEST
USP Grade - RESIDUAL SOLVENTS	PASS/FAIL	IN PASS TEST	PASS TEST
USP Grade - SOLUBLE STARCH, SULFITES	ppm	<= 15	<15
USP Grade - USP FRUCTOSE IMPURITIES	%	<= 0.15	<0.15
USP Grade - USP MALTOSE AND ISOMALTOSE IMPURITIES	%	<= 0.4	<0.4
USP Grade - USP MALTOTRIOSE IMPURITIES	%	<= 0.2	<0.2
USP Grade - USP TOTAL IMPURITY	%	<= 0.5	<0.5
USP Grade - USP UNSPECIFIED IMPURITIES	%	<= 0.10	<0.1
USP Grade - WATER	%	<= 1.0	1.0



Harout Sahagian  
QC Manager

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 use or further manufacturing. 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.

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