

## 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	A491
Lot Number	262452
Description	ACETIC ACID, GLACIAL, USP/FCC/EP/BP
CAS Number	64-19-7
Quality Test/Release Date	18/Jun/2026
Suggested retest date	06/May/2029
Country of Origin	Canada
Declaration of Origin	Synthetic
BSE/TSE	This chemical is manufactured from raw materials that do not contain animal parts, products, and/or by-products, nor do they come into contact with animal parts, products, and/or by-products.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid free from suspended matter.
British Pharmacopeia Grade - ASSAY	%	Inclusive Between 99.0 - 100.5	99.9
British Pharmacopeia Grade - CHLORIDES	mg/L	<= 25	<25
British Pharmacopeia Grade - FREEZING POINT	DEGREES CELSIUS	>= 14.8	16.3
British Pharmacopeia Grade - IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
British Pharmacopeia Grade - IRON	ppm	<= 5	<5
British Pharmacopeia Grade - REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
British Pharmacopeia Grade - RESIDUAL SOLVENTS	CONFORMS	= CONFORMS	CONFORMS TO STANDARD
British Pharmacopeia Grade - RESIDUE ON EVAPORATION	%	<= 0.01	<0.01
British Pharmacopeia Grade - SULFATES	mg/L	<= 50	<50
EP Grade - ASSAY	%	Inclusive Between 99.0 - 100.5	99.9
EP Grade - CHLORIDES	mg/L	<= 25	<25
EP Grade - FREEZING POINT	DEGREES CELSIUS	>= 14.8	16.3
EP Grade - IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
EP Grade - IRON	ppm	<= 5	<5
EP Grade - REDUCING SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
EP Grade - RESIDUAL SOLVENTS	CONFORMS	= CONFORMS	CONFORMS
EP Grade - RESIDUE EVAPORATION	%	<= 0.01	<0.01
EP Grade - SULFATES	mg/L	<= 50	<50
FCC Grade - ASSAY	%	Inclusive Between 99.5 - 100.5	99.9
FCC Grade - IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
FCC Grade - LEAD (Pb)	mg/kg	<= 0.5	<0.5
FCC Grade - NON-VOLATILE RESIDUE	%	<= 0.005	<0.005
FCC Grade - READILY OXIDIZABLE SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
FCC Grade - SOLIDIFICATION POINT	DEGREES CELSIUS	>= 15.6	16.3

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.

USP Grade - ASSAY	%	Inclusive Between 99.5 - 100.5	99.9
USP Grade - CHLORIDE	PASS/FAIL	= PASS TEST	PASS TEST
USP Grade - CONGEALING TEMPERATURE	DEGREES CELSIUS	>= 15.6	16.3
USP Grade - IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST
USP Grade - NON-VOLATILE RESIDUE	%	<= 0.005	<0.005
USP Grade - READILY OXIDIZABLE SUBSTANCES	PASS/FAIL	= PASS TEST	PASS TEST
USP Grade - RESIDUAL SOLVENTS	Meets requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS
USP Grade - SULFATE (SO4)	PASS/FAIL	= PASS TEST	PASS TEST

Ash Frey  
Supervisor, Quality Control

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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