

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by INTERTEK SAI Global
Certificate Number. QMS42099

Catalogue Number	A456
Lot Number	2681964
Description	Methanol LC-MS For LC-MC analysis
CAS Number	67-56-1
Quality Test/Release Date	11/Jun/2026
Expiry Phrase	Expires:5 years from analysis date
Country of Origin	Trinidad and Tobago
Declaration of Origin	Synthetic
BSE/TSE	Not directly derived from or manufactured with any animal byproducts in any way (Including but not limited to fermentation or nutrient broth, catalysts, enzymes).

Result Name	Units	Specifications	Test Value
APPEARANCE		Must be 'CLEAR, COLORLESS LIQUID'	CLEAR, COLORLESS LIQUID
ASSAY	%	>= 99.9	100.00
COLOR	APHA	<= 10	<5
EVAPORATION RESIDUE	ppm	<= 1	None Detected
IDENTIFICATION		Must be 'PASS'	PASS
IONIC IMPURITY - ALUMINUM (Al)	ppb	<= 10	<5
IONIC IMPURITY - BARIUM (Ba)	ppb	<= 10	<2
IONIC IMPURITY - CADMIUM (Cd)	ppb	<= 10	<2
IONIC IMPURITY - CALCIUM (Ca)	ppb	<= 20	<10
IONIC IMPURITY - CHROMIUM (Cr)	ppb	<= 10	<2
IONIC IMPURITY - COBALT (Co)	ppb	<= 10	<2
IONIC IMPURITY - COPPER (Cu)	ppb	<= 10	<5
IONIC IMPURITY - IRON (Fe)	ppb	<= 10	<5
IONIC IMPURITY - LEAD (Pb)	ppb	<= 10	<5
IONIC IMPURITY - MAGNESIUM (Mg)	ppb	<= 10	<5
IONIC IMPURITY - MANGANESE (Mn)	ppb	<= 10	<2
IONIC IMPURITY - NICKEL (Ni)	ppb	<= 10	<2
IONIC IMPURITY - POTASSIUM (K)	ppb	<= 10	<10
IONIC IMPURITY - SILVER (Ag)	ppb	<= 10	<2
IONIC IMPURITY - SODIUM (Na)	ppb	<= 50	<50
IONIC IMPURITY - TIN (Sn)	ppb	<= 10	<5
IONIC IMPURITY - ZINC (Zn)	ppb	<= 10	<5
LC GRADIENT TEST WITH PDA (200-400 NM)	mAU	<= 2	<2
LCMS SUITABILITY - NEG. MODE (AS CHLORAMPHENICOL)	ppb	<= 50	<50
LCMS SUITABILITY - POS. MODE (AS PROPAZINE)	ppb	<= 100	<100
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.5	0.099
OPTICAL ABS AT 214 NM	ABS. UNITS	<= 0.4	0.036
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.2	0.014
OPTICAL ABS AT 230 NM	ABS. UNITS	<= 0.1	0.006
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.01	0.004

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.

OPTICAL ABS AT 260 NM	ABS. UNITS	<= 0.005	0.003
OPTICAL ABS AT 280 NM	ABS. UNITS	<= 0.005	0.004
TITRATABLE ACID	mEq/g	<= 0.0003	0.00023
TITRATABLE BASE	mEq/g	<= 0.0002	0.00002
WATER (H2O)	%	<= 0.02	0.005

Additional Information Filtered to 0.1 micron



Ashok Ganatra
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 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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