Fisher Scientific UK Ltd.
Bishop Meadow Road
Loughborough,
LE11 5RG, United Kingdom

CERTIFICATE OF ANALYSIS

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

Catalogue Number	A456
Lot Number	2524396
Description	Methanol LC-MS For LC-MC analysis
CAS Number	67-56-1
Quality Test/Release Date	27/Jan/2025
Expiry Phrase	Expires:5 years from analysis date
Country of Origin	Trinidad and Tobago

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	None Detected
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	0.188
OPTICAL ABS AT 214 NM	ABS. UNITS	<= 0.4	0.107
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.2	0.062
OPTICAL ABS AT 230 NM	ABS. UNITS	<= 0.1	0.029
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.01	0.008
OPTICAL ABS AT 260 NM	ABS. UNITS	<= 0.005	0.005
OPTICAL ABS AT 280 NM	ABS. UNITS	<= 0.005	0.005
TITRATABLE ACID	mEq/g	<= 0.0003	0.0001
TITRATABLE BASE	mEq/g	<= 0.0002	0.00002
WATER (H2O)	%	<= 0.02	0.009

Additional Information Filtered to 0.1 micron

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.

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Ashok Ganatra
Supervisor, QC

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