

**Certificate of Analysis**

**Product:** Methanol  
**Grade:** LC-MS  
**Part No:** 1935-5  
**CAS No:** 67-56-1

<b>Lot:</b>	<b>M50108</b>
<b>Mfg. Date:</b>	<b>2022-05-24</b>
<b>Exp. Date:</b>	<b>3 years after Mfg. Date</b>

Manufactured by Duksan Pure Chemicals

**LC-MS Suitability**

Test	Unit	Specification	Results
ESI+ mode (as Reserpine)	ppb	Max. 50	<50
ESI- mode (as 4-Nitrophenol)	ppb	Max. 50	<50
Assay (by GC)	%	Min. 99.9	99.9
Color (APHA)		Max. 10	3
Water	%	Max. 0.03	0.005
Residue After Evaporation	ppm	Max. 1	<1
Titration Acid	mEq/g	Max. 0.0003	0.0001
Titration Base	mEq/g	Max. 0.0002	0.00003
Ultraviolet Spectrophotometry			
Wavelength	Unit	Maximum UV Absorbance	
220	nm	0.25	0.16
230	nm	0.15	0.07
254	nm	0.02	0.01
280	nm	0.01	0.002

**Metal Impurities**

Metal	Unit	Specification (Max)	Results
Aluminum (Al)	ppb	25	<1
Barium (Ba)	ppb	5	<1
Cadmium (Cd)	ppb	5	<1
Calcium (Ca)	ppb	25	<1
Chromium (Cr)	ppb	5	<1
Cobalt (Co)	ppb	5	<1
Copper (Cu)	ppb	5	<1

Iron (Fe)	ppb	5	<1
Magnesium (Mg)	ppb	25	<1
Manganese (Mn)	ppb	5	<1
Lithium (Li)	ppb	5	<1
Nickel (Ni)	ppb	5	<1
Potassium (K)	ppb	25	<2
Silver (Ag)	ppb	5	<1
Sodium (Na)*	ppb	50	<9
Tin (Sn)	ppb	5	<1

\* May change over time

Created By:  
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