

Shanghai Aladdin Biochemical Technology Co., LTD
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

Certificate of Analysis

Date of Testing: 2022-12-09 18:25:20
Date of Next Testing: 2023-12-09 18:25:20
Product Name: **Methanol**
CAS Number: 67-56-1
Specifications & Purity: LC-MS, ≥99.9%
Lot #: L2207358
SKU #: **M116125**
Analysis: **161389**

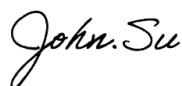
Parameter	Limit Values	Result
Lead(Pb)	0-0.02 (ppm)	0.00200 ppm
Fluorescence (quinine) at 254 nm	0-1 (ppb)	0.10000 ppb
HPLC Absorbance 254 nm	0-5 (mAU)	0.20000 mAU
Cobalt(Co)	0-0.02 (ppm)	0.00200 ppm
Silver (Ag)	0-0.1 (ppm)	0.01000 ppm
Tin(Sn)	0-0.1 (ppm)	0.01000 ppm
Cadmium(Cd)	0-0.05 (ppm)	0.05000 ppm
Copper(Cu)	0-0.01 (ppm)	0.00100 ppm
Manganese(Mn)	0-0.01 (ppm)	0.00100 ppm
Nickel(Ni)	0-0.02 (ppm)	0.00200 ppm
Purity(GC)	99.9-100 (%)	99.99000 %
Fluorescence (quinine) at 365 nm	0-0.5 (ppb)	0.05000 ppb
Zinc(Zn)	0-0.1 (ppm)	0.01000 ppm
Water by Karl Fischer	0-0.01 (%)	0.00200 %
Chromium(Cr)	0-0.02 (ppm)	0.00200 ppm
Barium(Ba)	0-0.1 (ppm)	0.05000 ppm
Acidity	≤ 0.0002 (eq/kg)	0.00010 eq/kg
Alkalinity Content	≤ 0.0002 (eq/kg)	0.00003 eq/kg
Aluminum(Al)	0-10 (ppb)	0.00005 ppb
Calcium(Ca)	≤ 10 (ppb)	0.00001 ppb
Iron(Fe)	0-10 (ppb)	0.00001 ppb
Potassium(K)	0-5 (ppb)	0.00001 ppb
Magnesium(Mg)	0-10 (ppb)	0.00001 ppb
Sodium(Na)	0-100 (ppb)	0.00001 ppb
Any further metal (ICP-MS)	0-5 (ppb)	0.20000 ppb
Transmission (at 210 nm)	≥ 35 %	43.00000 %
Transmission (at 220 nm)	≥ 60 %	70.80000 %

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Parameter	Limit Values	Result
Transmission (at 230 nm)	$\geq 75 \%$	85.10000 %
Transmission (from 260 nm)	$\geq 98 \%$	99.30000 %
Suitable for LC-MS; Intensity of background mass peak based on reserpine (APCI/ESI positive)	≤ 2 ppb	1.00000 ppb
Suitable for LC-MS; Intensity of background mass peak based on reserpine (APCI/ESI negative)	≤ 20 ppb	10.00000 ppb
Free Acid (as Formic Acid)	0-0.001 (%)	0.00010 %
Alkalinity (as NH ₃)	0-0.0005 (%)	0.00003 %
Evaporation Residue	0-1 (mg/L)	0.50000 mg/L
Gradient grade (at 235 nm)	≤ 1.0 mAU	0.04000 mAU
Gradient grade (at 220 nm)	≤ 2.0 mAU	0.15000 mAU
Appearance (M116125)	Colorless Liquid	Colorless liquid
Test for suitability for LC-MS	Passes	passes
Identity by IR	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager