

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

Certificate of Analysis

Date of Testing: 2023-12-28 10:33:42
Date of Next Testing: 2024-12-27 10:33:42
Product Name: **1-Methyl-2-pyrrolidinone**
CAS Number: 872-50-4
Specifications & Purity: electronic grade,99.9%
Lot #: L2315294
SKU #: **M103246**
Analysis: **300927**
Storage Temperature: Protected from light,Desiccated

Parameter	Limit Values	Result
Water by Karl Fischer	0-0.03 (%)	0.00980 %
Refractive index n ₂₀ /D	1.468-1.472	1.47090
Sodium(Na)	0-10 (ppb)	0.00000 ppb
Molybdenum(Mo)	0-10 (ppb)	0.00000 ppb
Phosphate(PO ₄)	0-0.05 (ppm)	0.00000 ppm
Iron(Fe)	0-10 (ppb)	0.00000 ppb
Calcium(Ca)	0-5 (ppm)	0.00000 ppm
Cadmium(Cd)	0-10 (ppb)	0.00000 ppb
Lithium(Li)	0-10 (ppb)	0.00000 ppb
Potassium(K)	0-10 (ppb)	0.00000 ppb
Magnesium(Mg)	0-10 (ppb)	0.00000 ppb
Sulfate(SO ₄ ²⁻)	0-0.05 (%)	0.00000 %
Zinc(Zn)	0-10 (ppb)	0.00000 ppb
Nickel(Ni)	0-10 (ppb)	0.00000 ppb
(NO ₃)Nitrate	0-0.05 (ppm)	0.00000 ppm
Copper(Cu)	0-10 (ppb)	0.00000 ppb
Cobalt(Co)	0-10 (ppb)	0.00000 ppb
Aluminum(Al)	0-10 (ppb)	0.00000 ppb
Manganese(Mn)	0-10 (ppb)	0.00000 ppb
Chloride(Cl ⁻)	0-0.05 (ppm)	0.03000 ppm
Chromium(Cr)	0-10 (ppb)	0.00000 ppb
Lead(Pb)	0-10 (ppb)	0.00000 ppb
Hazen	0-25	10.00000
total diol	0-20 (ppm)	10.00000 ppm
Purity(GC)	99.9-100 (%)	99.90000 %
Silver (Ag)	0-10 (ppb)	0.00000 ppb

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Parameter	Limit Values	Result
Total Amine	0-20 (ppm)	10.00000 ppm
Appearance (M103246)	Colorless to light yellow liquid	Colorless to light yellow liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure

A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager