

Certificate of Analysis

1-Methyl-2-Pyrrolidone (NMP)

Ultrapure Analytical Reagent

Catalog No :	UP-100NMP	Date Certified :	JUN. 08, 2026
Lot :	UNMP19F08A	Expiration :	DEC. 07, 2026
CAS No.:	872-50-4	Packaging :	1000g in Plastic Bottle
Grade	Ultrapure	Identified uses	Laboratory Reagent
Empirical Formula	C ₅ H ₉ NO	Description :	For Trace Metal Analysis
Density	1.032 g/mL (20 °C)	Storage Condition :	Store at RT.

1. Chemical properties

Item	Unit	Spec.	Result
Purity	GC%	≥99.85	99.96
Color	APHA	≤20	5
Refractive Index(20 °C)	-	1.470~1.472	1.4709
Chloride	ppm	≤0.3	≤0.3
Base value	mg-KOH/g	≤0.02	0.01
Water	%	≤0.03	0.011

2. Cation traces

[Unit : ppt]

Element	Result
Al (Aluminum)	≤100
As (Arsenic)	≤100
Au (Gold)	≤100
Ba (Barium)	≤100
Be (Beryllium)	≤100
Bi (Bismuth)	≤100
Ca (Calcium)	≤100
Cd (Cadmium)	≤100
Co (Cobalt)	≤100
Cr (Chromium)	≤100
Cu (Copper)	≤100
Fe (Iron)	≤100
Ga (Gallium)	≤100
Ge (Germanium)	≤100
Hf (Hafnium)	≤100
Mg (Magnesium)	≤100
In (Indium)	≤100

K (Potassium)	≤100
Li (Lithium)	≤100
Mn (Manganese)	≤100
Na (Sodium)	≤100
Nb (Niobium)	≤100
Ni (Nickel)	≤100
Pb (Lead)	≤100
Pd (Palladium)	≤100
Pt (Platinum)	≤100
Sb (Antimony)	≤100
Se (Selenium)	≤100
Sn (Tin)	≤100
Sr (Strontium)	≤100
Ta (Tantalum)	≤100
Te (Tellurium)	≤100
Ti (Titanium)	≤100
Th (Thorium)	≤100
Tl (Thallium)	≤100
U (Uranium)	≤100
W (Tungsten)	≤100
Zn (Zinc)	≤100
V (Vanadium)	≤100
Zr (Zirconium)	≤100

ICP-MS: Determination after evaporation to dryness with ICP-MS

ICP-MS*: Determination with ICP-MS

GFAAS**: Determination with graphite furnace atomic absorption spectrometry

Actual analysis values are subject to unavoidable systematic variations in this concentration range. Each metallic impurity level guaranteed to be 100 ppt or less. Open and use in a clean environment of CLASS 100 or higher. This product is for laboratory analysis and research purpose only. Keep tightly capped and stored under the conditions stated above. Products are tested by validated methods specified in the manufacturer's quality system. The manufacturer warrants that its products shall conform to the description of such as provided in its catalog or on the specific product label. This warranty is exclusive, and the manufacturer makes no other warranty, express implied, including any implied warranty of merchantability of fitness for any particular purpose.

For use in laboratory analysis.

Certified by :



JEONG, Organic QC Manager