

## Certificate of Analysis

<b>Product</b>	n-Methyl-2-Pyrrolidone	<b>Batch No.</b>	: 21 04 0230
<b>Grade</b>	For Headspace GC Analysis	<b>Manufacturing date</b>	: 30/04/2021
<b>Code No.</b>	HS1123	<b>Best before</b>	: 04/2023

Items	Descriptions	Specifications		Test Results
1	Assay (by GC.)	99.8%	min.	99.9%
2	Appearance	Clear, colorless liquid		Clear, colorless liquid
3	Color (APHA)	10	max.	< 10
4	Water (by Coulometry)	0.05%	max.	0.016%
5	Acidity (mEq./g.)	0.0005	max.	< 0.0005
6	Residue on Evaporation	0.0005%	max.	< 0.0005%
7	UV cutoff wavelength	190-269	nm	190-269 nm
8	UV Transmission Levels (%T)			
	> 350 nm	98%	min.	99.8%
	320 nm	90%	min.	98.1%
	300 nm	85%	min.	94.1%
	285 nm	60%	min.	82.2%
9	Residual solvent (GC/HS) according to ICH			
	Class 1 Solvents	1	ppm max.	< 1 ppm
	Class 2 Solvents	10	ppm max.	< 10 ppm
	Class 3 Solvents	50	ppm max.	< 50 ppm

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.  
Product passed through 0.2 micron final filter.

This is to certify the above batch has been tested and complies with this specification.

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Chemist

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Technical Manager