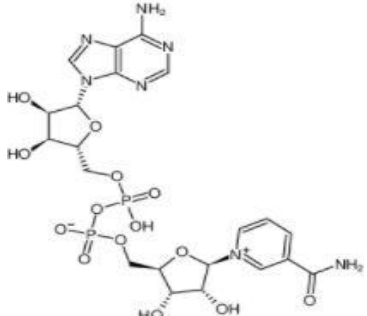




CERTIFICATE OF ANALYSIS

Product Name:	NAD ⁺		
Molecular Formula:	C ₂₁ H ₂₇ N ₇ O ₁₄ P ₂		
Cas No.:	53-84-9	Quantity:	120kg
Manufacture Date:	2023.01.03	Batch No.:	MLP-NAD-20230103
Report Date:	2023.01.10	Retest Date:	2025.01.02

Testing Items	Specifications	Results
Appearance	White to yellowish powder or crystalline powder	Conforms
Identification	Conform with NMR	Conforms
Na Content (ICP-OES)	≤0.5%	0.01%
Water	≤10.0%	4.7%
pH	2.0-4.0	3.3
Purity (HPLC)	≥98.5%	99.71%
Assay	≥97.0%	99.28%
Heavy metal		
Lead(Pb)	≤0.5ppm	Conforms
Arsenic(As)	≤0.5ppm	Conforms
Cadmium(Cd)	≤0.5ppm	Conforms
Mercury(Hg)	≤0.5ppm	Conforms



Spectroscopy Detection		
A340/A260	0.39-0.47 (0.43±0.04)	0.42
A250/A260	0.75-0.91 (0.83±0.08)	0.83
A280/A260	0.19-0.23 (0.21±0.02)	0.22
ϵ 260 (pH=7.5)	16.2-19.8($10^3\text{L}\cdot\text{mol}^{-1}\cdot\text{cm}^{-1}$) (18.0±1.8) $\times 10^3$	17.9×10^3
ϵ 340 (pH=10)	5.7-6.9($10^3\text{L}\cdot\text{mol}^{-1}\cdot\text{cm}^{-1}$) (6.3±0.6) $\times 10^3$	6.5×10^3
Residual Solvent		
Methanol	≤1.0%	N.D
Ethanol	≤2.0%	0.02%
Microbial		
Colonies Number	≤750CFU/g	<10CFU/g
Yeast & Mold	≤100CFU/g	<10CFU/g
Escherichia Coli	<3MPN/g	N.D
Salmonella	Negative	N.D
Storage	Keep dry and away from light, storage at 2°C~8°C.	
Conclusion	This product conforms to the specifications.	

ANALYST:

检1

CHECKER:

检2

Q.C. DIRECTOR:

