

## CERTIFICATE OF ANALYSIS

Product Name:	NAD+		
CAS NO.:	53-84-9	Manu Date:	Jan. 12, 2021
Batch Number:	NF-20210112	Expiration Date:	Jan. 11, 2023
Quantity:	50kg	Report Date:	Jan. 15, 2021
Storage Condition:	Store in a well-closed and dry place with constant room temperature and Non-direct sunlight		

Item	Standard	Test Result
Assay(HPLC)	≥97%	99.40%
<b>Spectroscopy Detection</b>		
A340/A260	0.39-0.47 (0.43±0.04)	0.43
A250/A260	0.75-0.91 (0.83±0.08)	0.82
A280/A260	0.19-0.23 (0.21±0.02)	0.20
ε260 (pH=7.5)	16.2-19.8(10 <sup>3</sup> L·mol <sup>-1</sup> ·cm <sup>-1</sup> ) (18.0±1.8)×10 <sup>3</sup>	17.8×10 <sup>3</sup>
ε340 (pH=10)	5.7-6.9(10 <sup>3</sup> L·mol <sup>-1</sup> ·cm <sup>-1</sup> ) (6.3±0.6)×10 <sup>3</sup>	6.4×10 <sup>3</sup>
<b>Organoleptic</b>		
Appearance	Fine Powder	Conforms
Color	White to yellowish powder or crystalline powder	Conforms
<b>Physical Characteristics</b>		
Loss on Drying	≤10.0%	7.80%
Na Content (ICP-OES)	≤0.5%	0.003%
Ethanol	≤2.0%	Negative
Methanol	≤1.0%	Conforms
pH Value	2.0-4.0	2.6
Identification	Conform with NMR	Conforms
<b>Heavy metals</b>		
Lead(Pb)	≤0.5ppm	Conforms
Arsenic(As)	≤0.5ppm	Conforms
Mercury(Hg)	≤0.5ppm	Conforms
Cadmium(Cd)	≤0.5ppm	Conforms
<b>Microbiological Tests</b>		
Total Plate Count	≤750cfu/g	Conforms
E. Coli.	≤3.0MPN/g	Negative
Conclusion	Conforms to the In-house standard	
Tested by:	Lijun Dou	Approved by: Jicheng Niu

