

## Certificate of Analysis

Product and Batch Information			
Brand Name	UTHEVER <sup>®</sup>		
Product Name	Beta-Nicotinamide Mononucleotide (NMN)		
Version	B: Low bulk density (NLT 0.18-0.20g/ml) only for powder form		
Batch No.	NMN210701	CAS#	1094-61-7
Manufacture Date	Jul. 06th, 2021	Expiry Date	Jul. 05th, 2023
Country of Origin	P.R. China	Reference	EFFE 18
Item	Specification	Result	Test Method
<b>Active Ingredient</b>			
Assay(% on dry basis)	99.00% ~102.00%	99.06%	HPLC
Purity	NLT 99.0%	99.54%	HPLC
<b>Physical Control</b>			
Identification	1H NMR spectra correspond to reference standard	Conforms	1H NMR
	13C NMR spectra correspond to reference standard	Conforms	13C NMR
	LC-MS retention time and m/z correspond to reference standard	Conforms	LC-MS
Appearance	White to off-white crystalline powder	Conforms	Visual
Odor & taste	Characteristic	Conforms	Organoleptic
Appearance of solution	5%w/v in water: Colorless to pale yellow and clear	Conforms	Organoleptic
Sodium Content	NMT 1.0%	Conforms	USP43
Water Content	NMT 1.0%	0.39%	Karl Fischer
PH(1.0g/100mL(25°C))	3.0-4.5	3.07	ChP
Bulk Density	0.18-0.20g/ml	0.20g/ml	USP43
Residue Solvents	Ethanol: NMT 500ppm	Negative	USP43
<b>Chemical Control</b>			
Arsenic (As)	NMT 0.5ppm	Conforms	ICP-MS
Cadmium (Cd)	NMT 0.5ppm	Conforms	ICP-MS
Lead (Pb)	NMT 0.5ppm	Conforms	ICP-MS
Mercury (Hg)	NMT 0.1ppm	Conforms	ICP-MS
<b>Microbiological Control</b>			
Total Plate Count	NMT 1,000cfu/g	<10 cfu/g	USP 43
Yeast & Mold	NMT 1,00cfu/g	<10 cfu/g	USP 43
Salmonella	Negative	Negative	USP 43
E.Coli	Negative	Negative	USP 43
Staphylococcus Aureus	Negative	Negative	USP 43
Pseudomonas aeruginosa	Negative	Negative	USP 43
Bile-tolerant Gram-Negative Bacteria	Negative	Negative	USP 43
Candida albicans	Negative	Negative	USP 43
Clostridia	Negative	Negative	USP 43
Coliforms	NMT 0.92MPN/g	< 0.3MPN/g	GB4789.3
<b>Packing and Storage</b>			
Packing	Pack in paper-Carton and two plastic-bags inside.		
Storage	Store in a well-closed container away from moisture and direct sunlight.		
Shelf Life	2 years if sealed and stored properly.		



Analyst: Huanan Li  
Approver: Jinhao Shi

