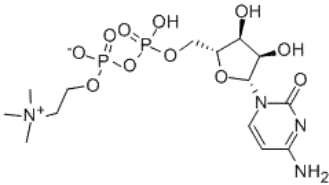


CERTIFICATE OF ANALYSIS

Product name:	Citicoline (CDP-Choline)		
CAS No.:	987-78-0		
Molecular formula	C ₁₄ H ₂₆ N ₄ O ₁₁ P ₂	Batch No.	CDPC-20241119
Manufacture date:	2024.11.19	Report date:	2024.11.25
Quantity:	1500kg	Retest date:	2027.11.18

Testing Items	Specifications	Results
Appearance	White crystalline powder	Conforms
Clarity and color	Colorless and clear	Conforms
PH	2.5-3.5	2.6
Particle size	100% pass 20 mesh	Conforms
5'-CMP	≤1.0%	0.29%
Ammonium	≤0.05%	Conforms
Free phosphoric acid	≤0.1%	Conforms
Loss on drying	≤5.0%	3.8%
Heavy metals		
Heavy metals total	≤10ppm	<10ppm
Arsenic (As)	≤2ppm	<2ppm
Lead (Pb)	≤3ppm	<3ppm
Cadmium (Cd)	≤1ppm	<1ppm
Mercury (Hg)	≤0.1ppm	<0.1ppm

Microbiology control		
Total plate count	≤1000cfu/g	<1000cfu/g
Fungi count	≤100cfu/g	<100cfu/g
Total yeast & molds	≤100cfu/g	<100cfu/g
Total coliforms	≤10cfu/g	<10cfu/g
Escherichia coli	Negative/10g	Negative
Salmonella species	Negative/25g	Negative
Staphylococcus aureus	Negative/g	Negative
Assay (HPLC)	98.0%~102.0%	99.49%
Purity (HPLC)	≥99.0%	99.73%
Storage	Easy to absorb moisture and agglomerate. Store in cool and dry place.	
Conclusion	Meet the specifications.	

ANALYST: **检1** CHECKER: **检2** Q.C DIRECTOR:

