

JINAN ASIA PHARMACEUTICAL CO.,LTD.
XINSHI TOWN, JIYANG COUNTY, JINAN CITY, CHINA
CERTIFICATE OF ANALYSIS

Product Name Citicoline
 Lot Number JA2010624
 Batch Quantity 1500Kgs
 MFG.Date Jun.24, 2021
 EXP.Date Jun.23, 2023

Items of Analysis	Specification	Results
Appearance	White crystalline powder	Conforms
Assay (by HPLC)	98.0%-102.0%	100.20%
Purity (HPLC)	≥99.0%	99.83%
Clarity and color	Colorless and clear	Conforms
5'-CMP	≤1.0%	0.4%
Bulk Density	0.4-0.5 g/cm ³	0.47 g/cm ³
Ammonium	≤0.05%	Conforms
Loss on drying	≤5.0%	3.20%
PH	2.5-3.5	2.90
Free phosphoric acid	≤0.01%	Conforms
Heavy metals	≤10ppm	Conforms
Arsenic (As)	≤2ppm	Conforms
Lead (Pb)	≤3ppm	Conforms
Cadmium (Cd)	≤1ppm	Conforms
Mercury (Hg)	≤0.1ppm	Conforms
Total plate count	≤1000 cfu/g	Conforms
Fungi count	≤100cfu/g	Conforms
Total yeast & molds	≤100cfu/g	Conforms
Total coliforms	≤10cfu/g	Conforms
Escherichia coli	Negative/10g	Conforms
Salmonella species	Negative/25g	Conforms
Staphylococcus aureus	Negative/g	Conforms
Particle Size	100% pass 20 mesh	Conforms

Storage Easy to absorb moisture and agglomerate.
 Store in cool and dry place.

Approved by: *Fengming Chu* Checked by: *Zhang Xiaohua* Tested by: *Wang Haiyan*

