

### CERTIFICATE OF ANALYSIS

<i>Name</i>		<i>Structure</i>	
<b>Ectoine</b>		N/A	
<i>CAS No.</i>	96702-03-3	<i>Specification</i>	N/A
<i>Quantity</i>	352KG	<i>Test Method</i>	N/A
<i>Batch No.</i>	HP220508	<i>Production Date</i>	2022.05.23
<i>Report Date</i>	2022.05.23	<i>Expiry Date</i>	2024.05.22
<i>Items</i>	<i>Specifications</i>		<i>Results</i>
Appearance	White or white like crystal or powder.		Conforms
Spectrographical Identification	The infrared absorption spectrum should be consistent with the reference spectrum.		Conforms
Assay(HPLC)	≥98.5%		99.7%
Specific rotation	+139° - +145°		+141.3°
pH	6.0-8.0		6.75
Light transmittance of solution	≥98.0%(430nm)		99.8%
Solvent residue	methanol≤10ppm		Conforms
	ethanol≤2000ppm		Conforms
Chloride	≤0.03%		<0.03%
Loss on drying	≤0.5%		0.07
Residue on ignition	≤0.1%		0.01%
Heavy metals	As≤2ppm		<2ppm
	Pb≤10ppm		<10ppm
	Sb≤1ppm		<1ppm
	Cd≤5ppm		<5ppm
	Ni≤10ppm		<10ppm
	Cr≤5ppm		<5ppm
	Hg≤1ppm		<1ppm
Total plate count	≤100CFU/g		Conforms
Yeast& mold count	≤50CFU/g		Conforms
Staphylococcus aureus	No detection		Negative
Pseudomonas aeruginosa	No detection		Negative
Thermotolerant coliforms	No detection		Negative
Conclusion	Conform to standard		Conforms

Reported by/ Date: 杨倩

Received by/ Date: 徐文慧

Approved by/Date: 