

## Certificate of Analysis

COA NO.: 22101730

Product: Ascorbic Acid

Analysis Standard: BP/USP/FCC/EP/E300

Batch Number: 1221070016

Quantity: 4000kg

Manufacture Date: Oct. 5, 2022

Expiry Date: Oct. 4, 2025

Analysis contents	Analysis standard	Results
Characteristics	White or almost white crystalline powder or colourless crystals	Pass
*Solubility	Freely soluble in water, slightly soluble in ethanol, insoluble in chloroform	Pass
Identification A	Positive reaction	Pass
*Identification B	IR	Pass
Melting point	About 190°C	190°C
Specific rotation	+20.5°~+21.5°	+21.0°
pH (5%, W/V)	2.1~2.6	2.3
*pH (2%, W/V)	2.4~2.8	Pass
*Loss on drying	≤0.1%	Pass
Residue on ignition	≤0.1%	<0.1%
Assay	99.0%~100.5%	99.7%
Clarity of solution	Clear	Pass
Color of solution	≤BY <sub>7</sub>	<BY <sub>7</sub>
*Impurity E	≤0.2%	<0.2%
*Impurity C	≤0.15%	<0.15%
*Impurity D	≤0.15%	<0.15%
*Unspecified impurities	≤0.10%	<0.10%
*Total of impurities other than C and D	≤0.2%	<0.2%
*Heavy metal	≤10ppm	<10ppm
*Copper	≤5ppm	<5ppm
*Iron	≤2ppm	<2ppm
*Cadmium(ICP-MS)	≤1ppm	<1ppm
*Mercury(ICP-MS)	≤1ppm	<1ppm
*Lead(ICP-MS)	≤1ppm	<1ppm
*Arsenic(ICP-MS)	≤1ppm	<1ppm
*Total Plate Count	≤1000cfu/g	<1000cfu/g
*Yeast and Molds	≤100cfu/g	<100cfu/g
*Escherichia coli	Negative	Pass
*Salmonella	Negative	Pass
*Staphylococcus Aureus	Negative	Pass
*Residual solvents	Meets requirement	Pass

Conclusion: The above product conforms with BP/USP/FCC/EP/E300 standard.