



# SHANDONG TIANLI PHARMACEUTICAL CO., LTD.

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## CERTIFICATE OF ANALYSIS

Product Name: Ascorbic Acid

Quantity: 18.0 MT

Batch No.: 012007055

Date of Certificate: Jul.20, 2020

Date of Manufacture: Jul.17, 2020

Date of Expiry: Jul.16, 2023

Items	Standard	Results
Appearance	White crystalline powder	White crystalline powder
Identification	Positive	Positive
Clarity of solution	Clear	Clear
Color of solution	≤BY <sub>7</sub>	<BY <sub>7</sub>
Assay	99.0~100.5%	99.5%
Loss on Drying	≤0.4%	0.04%
*Residue on ignition	≤0.1%	0.03%
Specific rotation	+20.5°~+21.5°	+20.84°
PH(with 2% water solution)	2.4-2.8	2.49
PH(with 5% water solution)	2.1-2.6	2.30
Melting range	About 190°C	191°C
Heavy metals	≤3ppm	<3ppm
*Iron	≤2ppm	<2ppm
*Copper	≤2ppm	<2ppm
*Impurity E	≤0.2%	<0.2%
*Arsenic	≤1ppm	<1ppm
*Lead	≤1ppm	<1ppm
*Cadmium	≤1ppm	<1ppm
*Mercury	≤0.1ppm	<0.1ppm
*Organic volatile impurities	Methanol ≤3000ppm	<3000ppm
*Related Substances	Impurity C ≤0.15% Impurity D ≤0.15% Any Other Unspecific Impurities Impurity ≤0.10% Total Impurity ≤0.2%	Complies     QA PASS
*Total Plate Count	≤1,000cfu/g	<1,000cfu/g
According to BP2019/USP42/FCC11/EP9.3/E300.		

Tester Li Jianting

Checked by Mu Yonghua

Approved by Luan Shaohua

\*These items are periodic analyses.