



JINAN JIUAN ESTER CHEMICAL CO.,LTD.
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CERTIFICATE OF ANALYSIS

Product Name :	Betaine Hydrochloride	Country of Origin:	China
Batch No.:	20170306	Quantity:	1000Kg
Manufacture Date:	Mar.08, 2017	Package:	25Kg/Drum
Expiration Date:	Mar.07, 2019	Standard:	USP

Item	Specification	Results	Test Method
Appearance	White crystalline granular	Conform	Visual
Assay (on a dry basis)	98.0-100.5%	99.29%	USP<541>
Loss on Drying	NMT 0.5%	0.15%	USP<731>
pH (1 in 4 Solution)	0.8-1.2	0.83	USP<791>
Residue on Ignition	NMT 0.1%	0.08%	USP<281>
Heavy Metals	NMT 10 PPM	Conform	USP<231>
Lead	NMT 1 PPM	Conform	USP<730>
Arsenic	NMT 1 PPM	Conform	USP<730>
Mercury	NMT 0.2 PPM	Conform	USP<730>
Cadmium	NMT 0.2 PPM	Conform	USP<730>
Chromium	NMT 0.2 PPM	Conform	USP<730>
Total Plate Count	NMT 1000cfu/g	Conform	USP<61>
Yeast and Mold	NMT 100cfu/g	Conform	USP<61>
E.coli	Negative	Conform	USP<62>
Salmonella	Negative	Conform	USP<62>
Staphylococcus	Negative	Conform	USP<62>
Particle Size	Thru20 mesh	100%	USP<786>

Conclusion: The test results correspond to the standard of USP39.

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