



JINAN JIUAN ESTER CHEMICAL CO.,LTD.

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CERTIFICATE OF ANALYSIS

Product Name :	DL-DMAE Bitartrate	Country of Origin:	China
Batch No.:	20160805	Quantity:	700Kg
Manufacture Date:	2016.08.12	Expiry Date:	2018.08.11
Package:	25kg/Drum	Standard:	In-house standard

Item	Specification	Results	Test Method
Appearance	White crystalline powder	Conform	Visual
Assay(on dry basis):	NLT 98.0%	99.42%	Titration
Loss on Drying:	NMT 0.5%	0.42%	Drying(80°C,4h)
pH(10% aqua):	3.0-4.0	3.41	pH meter
DMAE	NLT 36.5%	37.0%	Titration
Melting point	102.0-107.0°C	Conform	Capillary method
Residue on Ignition:	NMT 0.1%	0.02%	Electric furnace(550°C)
Heavy Metals:	NMT 10 ppm	Conform	Colorimetric method
Arsenic:	NMT 2 ppm	Conform	ICP
Lead:	NMT 2 ppm	Conform	ICP
Total Plate Count:	NMT 1000cfu/g	Conform	Viable plate count
Yeast and Mold:	NMT 100cfu/g	Conform	Viable plate count
Total coliform	NMT 50cfu/g	Conform	USP<62>
E.coli:	Negative	Conform	USP<62>
Salmonella:	Negative	Conform	USP<62>
Staphylococcus:	Negative	Conform	USP<62>
Particle Size:	NLT 95% Thru 20 mesh	100%	Sieving
Bulk Density	NLT 0.5g/ml	0.60g/ml	USP

Conclusion:

The test results conform to the in-house standard.

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