



JINAN JUWAN ESTER CHEMICAL CO.,LTD.

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CERTIFICATE OF ANALYSIS

Product Name :	DL-DMAE Bitartrate	Country of Origin:	China
Batch No.:	20170601	Quantity:	500Kg
Manufacture Date:	2017.06.11	Package:	25Kg/Drum
Expiry Date:	2019.06.10	Standard:	In-house standard

Item	Specification	Results	Test Method
Appearance	White crystalline powder	Conform	Visual
Assay(on dry basis):	NLT 98.0%	99.02%	Titration
Loss on Drying:	NMT 0.5%	0.15%	Drying(80°C,4h)
pH(10%solution):	3.0-4.0	3.35	pH meter
DMAE	NLT 36.5%	36.9%	Titration
Residue on Ignition:	NMT 0.1%	0.03%	Electric furnace(550°C)
Heavy Metals:	NMT 10 ppm	Conform	Colorimetric method
Lead	NMT 1 PPM	Conform	ICP
Arsenic	NMT 1 PPM	Conform	ICP
Mercury	NMT 0.2 PPM	Conform	ICP
Cadmium	NMT 0.2 PPM	Conform	ICP
Total Plate Count:	NMT 1000cfu/g	Conform	Viable plate count
Yeast and Mold:	NMT 100cfu/g	Conform	Viable plate count
E.coli:	Negative	Conform	USP<62>
Salmonella:	Negative	Conform	USP<62>
Staphylococcus:	Negative	Conform	USP<62>
Particle Size:	Thru20 mesh	100%	Sieving
Bulk Density:	0.5-0.8g/ml	0.58g/ml	USP

Conclusion:

The test results conform to the in-house standard.



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