



# JINAN JIUAN ESTER CHEMICAL CO.,LTD.

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## Betaine HCl USP

### SPECIFICATION SHEET

Chemical Name:	1-carboxy-N,N,N-trimethyl methanaminium chloride
Molecular Weight:	153.61
Chemical Formula:	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> HCl
CAS:	590-46-5
Description:	White Crystal
Solubility:	64.7 g/100 ml, 25°C water
Mesh Size:	NLT95% through 20 Mesh
Bulk Density:	0.60-0.80 g/ml

#### SPECIFICATION: USP41

ANALYTICAL PROCEDURE	SPECIFICATION	METHOD
*Identification	Passes USP Test	USP
Appearance	White Crystal	Visual
Assay	98.0%-100.5%	USP<541>
Water	NMT 0.5%	USP<921>
pH (1 in 4)	0.8-1.2	USP<791>
Residue on Ignition	NMT 0.1%	USP<281>
Heavy Metals	NMT 10 ppm	USP<231>
Lead	NMT 1 ppm	USP<730>
Arsenic	NMT 1 ppm	USP<730>
Cadmium	NMT 0.2 ppm	USP<730>
Mercury	NMT 0.1 ppm	USP<730>
<b>MICROBIOLOGICAL SPECIFICATIONS</b>		
Total Plate Count	NMT 1000 cfu/g	USP<61>
Yeast and mold	NMT 100 cfu/g	USP<61>
E.coli	Negative/10g	USP<62>
*Salmonella	Negative/25g	USP<62>
*Staphylococcus	Negative/10g	USP<62>

Storage:	Preserve in well-closed containers in a cool, dry and well ventilated area.
Retest Date:	3 years from date of manufacture.
Composition:	100% no coating agent, no carrier
Country of Origin:	China
Certifications:	Kosher, HALAL, ISO 9001, ISO 22000, FSSC 22000 certified.
Allergen :	None
GMO Status (USA):	Non-GMO
Irradiation/ETO Status:	Non-Irradiated/Non-ETO treated
Source:	Condensation of chloroacetic acid and trimethylamine.

\*indicates that the value or range is a guaranteed specification, but the test is only performed on select lots based on Quality.