

Certificate of Analysis

Product Name:	Betaine Hydrochloride
CAS#:	590-46-5
Molecular Formula:	C₅H₁₁NO₂•HCl
Molecular Weight:	153.61
Solvents:	None
Country of Origin:	China
Batch Number:	Varies
Manufacture Date:	Varies
Retest Date:	Varies

Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
Betaine HCl (on dried basis) (HPLC)	≥98%	100.94%
Betaine HCl <Identification> (HPLC)	Positive	Positive <Conforms> Sample peak retention time compares positively to standard peak retention times within ± 10%
Loss on Drying (USP<731>)	≤0.50%	0.091%
Aerobic Plate Count	≤1000 cfu/g	<20 cfu/g
Coliforms	≤100 cfu/g	<20 cfu/g
<i>E. Coli</i>	Negative/10g	Absent
<i>Staph aureus</i>	Negative/10g	Absent
Yeast & Mold	≤100 cfu/g	<20 cfu/g
<i>Salmonella</i>	Negative/25g	Absent
<i>Pseudo. aeruginosa</i>	Negative	Absent
Conclusion (PureBulk):	This product conforms to standards	

The following information is an indirect translation of information provided from the Manufacturer's Certificate of Analysis, and should not be used solely as an instrument for strict quality control.

ITEMS	SPECIFICATIONS	RESULTS
Clarity of Solution	Clear	Conforms
Appearance	White Crystal	Conforms
pH (1 in 4)	0.8~1.2	0.81
Residue on Ignition	≤0.1%	0.08%
Heavy Metals	≤10 ppm	Conforms
Lead (Pb)	≤1 ppm	Conforms
Arsenic (As)	≤1 ppm	Conforms
Cadmium (Cd)	≤0.2 ppm	Conforms
Mercury (Hg)	≤0.1 ppm	Conforms
Bulk Density	0.60~0.80 g/ml	0.69 g/ml
Tapped Density	-	0.80 g/ml
Particle Size	Through 20 mesh	100%
	Through 40 mesh	45.23%
	Through 60 mesh	14.02%
	Through 80 mesh	3.03%
	Through 100 mesh	1.16%
Conclusion (Manufacturer):	This product Conforms to USP41 standards	

Additional Information:	Vegan BSE/TSE Free Food Grade
GMO Statement:	Non-GMO
Composition:	Betaine Hydrochloride 98%
Sterilization Method:	Non-Irradiated Non-EtO
Storage Conditions:	Keep in sealed container under 25°C. Keep away from strong light, heat and moisture.

Purebulk.Inc verifies that the information contained herein is true and correct to the best of our knowledge.

Verified By: Ann Foote / Candace Gibson

(This document was produced electronically and is valid without signature.)