

## **Certificate of Analysis**

Product Name	Betaine Hydrochloride		
Batch No.	BE230220		
Batch Quantity	2000kgs		
Storage Condition	Store in cool & dry place, Keep away from strong light and heat.		

Item	Specification	Result	Method
Basic Product Information			
Country of Origin	China	Conform	/
Organoleptic Data			
Assay(on a dry basis)	>98.0%	99.56%	USP<541>
Appearance	Fine powder	Conform	HE-QCS-1008
Color	White crystal	Conform	GB/T 5492-2008
Odor	Characteristic	Conform	GB/T 5492-2008
Taste	Characteristic	Conform	GB/T 5492-2008
Physical Characteristics			
Particle Size (20 mesh)	98.0%pass 20mesh	Conform	GB/T 5507-2008
Loss on Drying	<1.0%	0.13%	GB/T 14769-1993
Ash Content	<0.2%	0.11%	AOAC 942.05, 18th
PH	0.8-1.2	0.94	/
Bulk Density	0.6-0.8g/ml	0.66g/ml	USP<616>
Tapped Density	0.7-1.0g/ml	0.78g/ml	
Heavy Metals			
Total Heavy Metals	<10ppm	Conform	USP <231>, method II
As	<2.0ppm	Conform	AOAC 986.15, 18th
Pb	<2.0ppm	Conform	AOAC 986.15, 18th
Cd	<0.5ppm	Conform	AOAC 986.15, 18th
Hg	<0.5ppm	Conform	AOAC 971.21, 18th
Microbiology			
Total Plate Count	<1,000cfu/g	Conforms	AOAC 990.12, 18th
Yeast & Mold	< 100cfu/g	Conforms	FDA (BAM) Chapter 18, 8th Ed.
E. Coli	<3MPN/g	<3MPN/g	AOAC 997.11, 18th
Salmonella	Salmonella nil/25g	Salmonella nil/25g	FDA (BAM) Chapter 5, 8th Ed.

