



Certificate of Analysis

Product and Batch Information			
Product Name:	Choline Alfoscerate 50% Powder	Country of Origin:	P.R. China
CAS No.:	28319-77-9	Molecular Weight:	257
Molecular Formular:	C ₈ H ₂₀ NO ₆ P	Batch:	CS-GPC-160105
Manufacture Date:	Jan 05, 2016.	Expired Date:	Jan 04, 2018.

Item	Specification	Result	Test Method
Active Ingredients			
Assay(% .On Dried Base)	NLT50.0%%	50.50%	HPLC
Physical Control			
Appearance	Fine Granula Powder	Complies	Visual
Color	White to light yellow	Complies	Visual
Odor	Neutral	Complies	Organoleptic
Identification	The R value of the sample and STD should be same.	Complies	TLC
Loss on Drying	5.0% Max	3.24%	USP
Hygrosopicity	None	Confirms	USP
Chemical Control			
Heavy metals	NMT10PPM	Conforms	USP
Arsenic(As2O3)	NMT1PPM	Conforms	USP
Sulfate(SO4)	NMT 0.020%	Conforms	USP
Iron(Fe)	NMT10PPM	Conforms	USP
Chloride(Cl)	NMT 0.020%	Conforms	USP
Solvent Residual	Meeting USP Standard	Conforms	GC
Microbiological Control			
Total Plate Count	10,000cfu/g Max	Conforms	USP
Yeast & Mold	300cfu/g Max	Conforms	USP
Coliforms	10cfu/g Max	Conforms	BAM
E.Coli	Negative/10g	Conforms	USP
Salmonella sp.	Negative/25g	Conforms	USP
Staph Aureus	Negative/10g	Conforms	USP
Pseudomonas aeruginosa	Negative/25g	Conforms	USP
Packing and Storage			
Packing	Pack in paper-drums and a Aluminum foil lined-bags inside. 25Kg/Drum		
Storage	Store in a well-closed container away from moisture and direct sunlight.		
Shelf Life	2 years if sealed and stored properly.		

