

## Certificate of Analysis

Product Name:	Alpha GPC (L- $\alpha$ -Glycerolphosphorylcholine)
Molecular Formula:	C <sub>8</sub> H <sub>20</sub> NO <sub>6</sub> P
CAS#:	28319-77-9
Country of Origin:	China
Batch Number:	Varies
Manufacture Date:	Varies
Retest Date:	Varies

### Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
Alpha GPC (HPLC)	98-102%	99.99%
Alpha GPC <Identification> (HPLC)	Positive	Conforms/Positive Sample peak retention time compares positively to standard peak retention times within $\pm$ 10%
Loss on Drying (USP<731>)	$\leq$ 2%	0.73%
Aerobic Plate Count	<10,000 cfu/g	<20 cfu/g
Coliforms	$\leq$ 100 cfu/g	<20 cfu/g
<i>E. Coli</i>	Negative	Absent
<i>Staph aureus</i>	Negative	Absent
Yeast & Mold	<1000 cfu/g	<20 cfu/g
<i>Salmonella</i>	Negative	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
Appearance	Crystalline	Conform
Color	White crystalline powder	Conform
Odor	Characteristic	Conform
Taste	Characteristic	Conform
Specification Rotation	-2.4° to -2.8°	-2.73°
pH (10% GPC Solution)	4.5-7.0 w/v	5.97
Residue on Ignition	$\leq$ 1.0%	0.05%
Total Heavy Metals	<20 ppm	Conform
Arsenic (As)	<1.0 ppm	Conform
Lead (Pb)	<1.0 ppm	Conform
Cadmium (Cd)	<0.5 ppm	Conform
Mercury (Hg)	<0.5 ppm	Conform
Solubility	Clear, Colorless Solution	Conform
Conclusion (Manufacturer):	This product conforms to enterprise standards	

**Additional Information:** Non-Allergen || Gluten-Free || GRAS || BSE/TSE Free || Vegan || Sewer Sludge Free

**Sterilization Method:** Non-Irradiation || Non-EtO

**GMO Statement:** Non-GMO

**Composition:** 100% of Alpha GPC 98%.

**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 / Nicole Rammage*

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