



TECHNICAL DATA PACKAGE

ALPHA-GLYCERYLPHOSPHORYLCHOLINE 98%

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IDENTIFICATION

NAME	ALPHA-GLYCERYLPHOSPHORYLCHOLINE 98%
SYNONYMS	<i>L-Alpha glycerylphosphorylcholine; alpha-GPC</i>
FORMULA	C ₈ H ₂₀ NO ₆ P
PRODUCT CODE	AGP98
SHELF LIFE	24 Months
MOLECULAR WEIGHT	257.221
CAS NUMBER	28319-77-9
SOLVENT(S) USED	Ethanol
COUNTRY OF ORIGIN	China

PHYSICAL & CHEMICAL ANALYSIS

<u>PARAMETER</u>	<u>SPECIFICATION</u>	<u>METHODS</u>
1. APPEARANCE	Hygroscopic Powder	Organoleptic
COLOR	White	Organoleptic
ODOR	Neutral	Organoleptic
2. IDENTIFICATION	Positive to reference standard	TLC
3. COLOR OF SOLUTION	NMT Y7	USP
4. SPECIFIC ROTATION	-2.4° ~ -2.8°	USP
5. pH	4.5 ~ 6.5	USP
6. PARTICLE SIZE	80% through 20 mesh	USP
7. WATER CONTENT	NMT 2.0%	USP
8. IMPURITIES RELATED SUBSTANCES	NMT a single spot	TLC
9. RESIDUAL SOLVENTS	NMT 1.0% Ethanol	GC
10. HEAVY METALS	NMT 20 ppm	USP
11. ASSAY [ON DRIED BASIS]	98.5 ~ 101.5%	Titration

MICROBIOLOGICAL CONTROL

TOTAL PLATE COUNT	NMT 1,000 cfu/g	USP
YEAST & MOLD	NMT 100 cfu/g	USP
E. COLI	Absent	USP

STORAGE CONDITIONS: PRESERVE IN TIGHTLY-SEALED CONTAINERS UNDER COOL, DRY CONDITIONS. AVOID EXCESSIVE EXPOSURE TO SUNLIGHT.

MANUFACTURING SITE: THIS MATERIAL HAS BEEN CUSTOM MADE AND PROCESSED AT NO.16, HAIWANG RD., CHANGSHU ADVANCED MATERIAL INDUSTRIAL PARK, JIANGSU, CHINA TO MEET SUAN FARMA, INC. SPECIFICATIONS.

Julianna Chedid

Julianna Chedid, QA/QC Assistant

DATE PRINTED: July 31, 2019



ALLERGEN STATEMENT

We, Suan Farma, Inc., hereby declare that **Alpha**-Glycerolphosphorylcholine 98% (product code **AGP98**) does not contain allergens listed in the Annex II of the Regulation (EU) No. 1169/2011 and in the US Food Allergen Labeling and Customer Protection Act (FALCPA):

- Cereals containing gluten and products thereof
- Crustaceans and products thereof
- Eggs and products thereof
- Peanuts and products thereof
- Soybeans and products thereof
- Milk and products thereof (including lactose)
- Nuts and products thereof
- Celery and products thereof
- Mustard and products thereof
- Sesame seeds and products thereof
- Sulphur dioxide and sulfites (> 10 mg/kg or 10 mg/L as SO₂)
- Lupin and products thereof
- Mollusks and products thereof
- Flax, common flax linseed and products thereof
- Buckwheat and products thereof
- Royal jelly and products thereof

We also confirm that the allergen free status of said product is guaranteed by our allergen control measures, including the nature of manufacturing method, raw materials used, cleaning procedure, separation storage of materials, labeling of materials, process and equipment, and so on.

Regards,

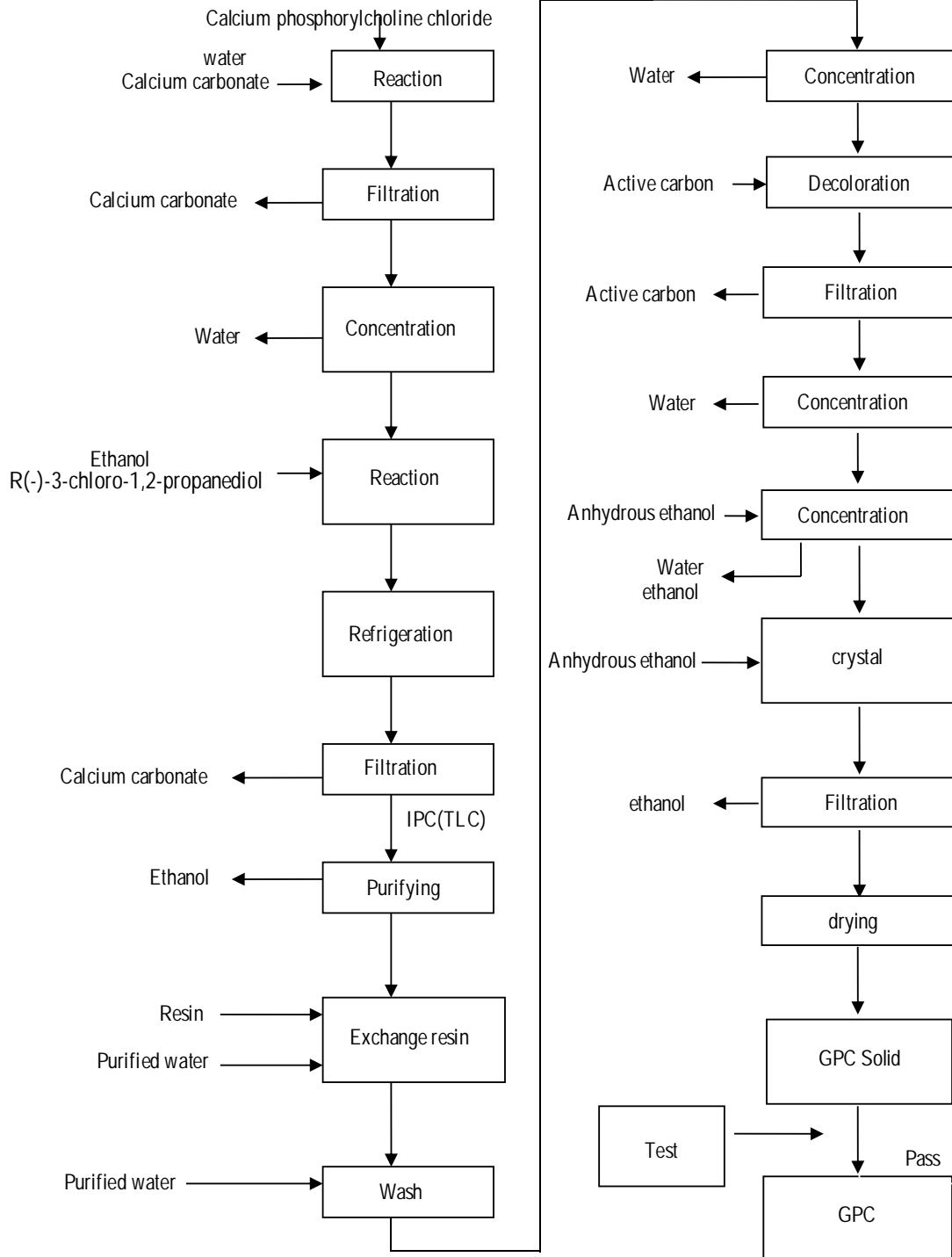
Julianna Chedid

Julianna Chedid
QA/QC Department
Suan Farma, Inc.
October 2019

MANUFACTURING PROCESS FLOW CHART

Product Name: Alpha-Glycerolphosphorylcholine 98%

Product Code: AGP98





SAFETY DATA SHEET

REVISION 01.2019

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

Product name: ALPHA-GLYCERYLPHOSPHORYLCHOLINE 98%
CAS number: 29319-77-9
Chemical family: Phospholipid synthetic
Chemical formula: C₈H₂₀NO₆P

Recommended use: Dietary supplements

Supplier Name: Suan Farma, Inc.
17-09 Zink Place, Unit 7 Fair Lawn, NJ 07410
Phone: 201-343-1188
FAX: 201-343-1102
E-mail: adminus@suanfarma.com

Emergency telephone number: CHEMTREC (24-hr Access) 800-424-9300;
International CHEMTREC, call: 703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

Emergency Overview:

OSHA Hazards: No known OSHA hazards

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C₈H₂₀NO₆P
Molecular Weight: 257.22 g/mol

No ingredients are hazardous according to HCS criteria.



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SECTION 4: FIRST AID MEASURES

If inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact:

Wash off with soap and plenty of water.

In case of eye contact:

Flush eyes with water as a precaution.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water.

SECTION 5: FIRE FIGHTING MEASURES

Conditions of flammability:

Not flammable or combustible.

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters:

Wear self contained breathing apparatus for firefighting if necessary.

Hazardous combustion products:

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid breathing vapors, mist or gas.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Conditions for safe storage:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature:

2-8 °C

Hygroscopic.

Keep in a dry place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment:

Respiratory protection:

SUAN FARMA, INC. 17-09 ZINK PLACE, UNIT 7, FAIR LAWN, NJ 07410, USA www.suanfarmausa.com



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Respiratory protection: not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection:

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures:

General industrial hygiene practice

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form: powder
pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water solubility	soluble
Partition coefficient (n-octanol/water)	no data available
Relative vapor density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation rate	no data available

SECTION 10: STABILITY AND REACTIVITY

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

No data available.

Conditions to avoid:

Hygroscopic

Materials to avoid:

Strong oxidizing agents

Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus

Other decomposition products - no data available



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SECTION 11: TOXICOLOGY INFORMATION

Acute toxicity:

Oral LD50: LD50 Oral - mouse - > 13,000 mg/kg

Inhalation: LC50 no data available

Dermal LD50: no data available

Other information on acute toxicity:

no data available

Skin corrosion/irritation:

no data available

Serious eye damage/eye irritation:

no data available

Respiratory or skin sensitization:

no data available

Germ cell mutagenicity:

no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

No data available

Aspiration hazard:

No data available

Potential health effects:

Inhalation:

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion:

May be harmful if swallowed.

Skin:

May be harmful if absorbed through skin. May cause skin irritation.

Eyes:

May cause eye irritation.

Signs and Symptoms of Exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects:

No data available

Additional Information:

RTECS: KH2775000



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SECTION 12: ECOLOGICAL INFORMATION

Toxicity:

No data available

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Mobility in soil:

No data available

PBT and vPvB assessment:

No data available

Other adverse effects:

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US):

Not dangerous goods

IMDG:

Not dangerous goods

IATA:

Not dangerous goods

SECTION 15: REGULATORY INFORMATION

OSHA Hazards:

No known OSHA hazards

SARA 302 Components:

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

No SARA Hazards

Massachusetts Right To Know Components:

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components:

L- α -Glycerophosphorylcholine

CAS-Number:

28319-77-9

New Jersey Right To Know Components:



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L- α -Glycerophosphorylcholine

CAS-Number:

28319-77-9

California Prop. 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

Further information

This information is based upon the present state of our knowledge. This SDS had been compiled and is solely intended for this product.

Notice to reader

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this Safety Data Sheet or in combination with any other product or process is the responsibility of the user.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information and we assume no liability resulting from its use, users should make their own investigations to determine the suitability of the information for their purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.



ADDITIONAL INFORMATION

We, Suan Farma, Inc., hereby declare that **Alpha-Glycerolphosphorylcholine 98%** (product code: **AGP98**) is manufactured in accordance with the following guidelines:

- o Neither Alpha-Glycerolphosphorylcholine 98% nor its components have been tested on animals.
o No animal derived products have been used in the manufacture of the above, making this material free from components which can cause Bovine Spongiform Encephalopathy (BSE) or Transmissible Spongiform Encephalopathy (TSE).
o The above material is composed of 100% Alpha-Glycerolphosphorylcholine. No carriers or excipients are used in the manufacturing process.
o The above extract has not been genetically modified or exposed to genetically modified organisms during the production process and is therefore GMO free.
o At no point in the process is the above material derived from, produced using, or handled with sewage sludge, as defined in 7 CFR 205.105(g).
o The above material has not been irradiated per 7 CFR 205.105(f) requirements with the understanding that "irradiation" shall be defined as outlined in 21 CFR 179.26.
o The above material has not been treated with ETO (ethylene oxide) or any other chemical sterilizing agent.
o Alpha-Glycerolphosphorylcholine 98% is suitable for vegetarian and vegan consumption.

Typical nutritional information for the above material is as follows:

Per 100 grams

Table with 2 columns: Nutrient Name and Value. Rows include Protein, Fat (of which), - Saturated fatty acids, - Mono unsaturated fatty acids, - Polyunsaturated fatty acids, Cholesterol, Carbohydrates (of which), - Sugars, - Starch, - Polyols, Dietary fiber, Ethyl Alcohol, Organic Acids, Calorific Value (kCal), Energetic value (kJ), and Sodium. All values are 0.

Regards,

Julianna Chedid

Julianna Chedid
QA/QC Assistant
Suan Farma, Inc.
May 2020