



Binding Phospholipids To Life



**LECITHINS AND PHOSPHOLIPIDS FOR
NUTRACEUTICAL APPLICATIONS**



CONTENTS

- ✓ Company Overview
- ✓ Introduction to Lecithin & Phospholipids
- ✓ Function Excipients
- ✓ Liposomal Agents
- ✓ Core Nutrition
- ✓ Prenatal Nutrition
- ✓ Infant Nutrition
- ✓ Sports Nutrition

COMPANY PROFILE

We are an innovation driven company manufacturing 'Lecithins and Phospholipids' for cosmetic, nutrition and pharmaceutical applications. We offer plant phospholipids (LECIVA), egg phospholipids (LIPOVA), synthetic phospholipids and neutral lipids.

VAV has been honored with India's Best SME (Innovation) 2013 by Yes Bank & Business Today. We also won the national award for business excellence (Chemicals and Pharmaceuticals) by Dun & Bradstreet in 2015.

QUALITY - OUR PRIORITY

Phospholipids are produced at our WHO GMP approved plant, manned by technical qualified scientists who guarantee each process is governed by rigorous quality control standards. We have cleared many audits successfully from our global customers and different regulatory bodies like CDSCO to grant Written Confirmation Letter (WCL) & WHO GMP, making us the ideal ally for businesses and operations in the world, exporting our products globally. Incorporating the necessary technology, our company has achieved high levels of quality in customer service, seeking the development and commitment of our employees, constantly taking care of compliance with GMP and environmental standards.

VAV sets the standard for excellence in nutraceutical manufacturing by ensuring the consistency of operations through the qualification of equipment and processes. We have inhouse state of the art laboratories for physical, chemical and microbial analyses.

TECHNICAL SUPPORT

Understanding the complexity of the subject, we provide our customers start to end technical support which includes the selection of right grade of lecithin or phospholipids and guidance on formulation and application aspects.

Our techno-commercial team works in close relation with the customers to help them achieve the targeted benefits from our products.

RESEARCH AND DEVELOPMENT

Innovation at VAV is backed by strong chemistry, analytical expertise and the advanced knowledge of the domain, acquired over the years. Experimentation and ingenuity is built into the fabric of our organization which has resulted in novel products and processes, increasing efficiency and reducing risks associated with our products.

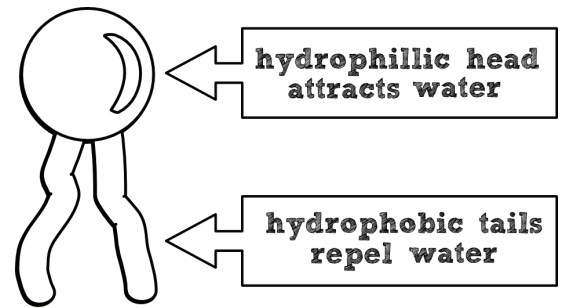
We actively support academic researchers at top institutions worldwide by providing study products and technical expertise. These efforts have resulted in a continuous output of publications in top scientific journals, and patents.



WHAT ARE LECITHINS AND PHOSPHOLIPIDS?

Lecithins are a mixture of lipids which contain a minimum of 50% polar lipids. These polar lipids (phospholipids) are the active ingredients of lecithin and impart to it the properties which make it suitable for use in Nutraceuticals.

Phospholipids are lipids containing phosphorus, a polar head and nonpolar tails. They are essential lipids of biological membranes. Based on their amphiphilic character, phospholipids are used as emulsifiers, wetting agents, solubilizers & liposomes due to their property of self assembly. Phospholipids play functional roles in various health segments.



FUNCTIONAL EXCIPIENTS

Phospholipids aid in formulation development:

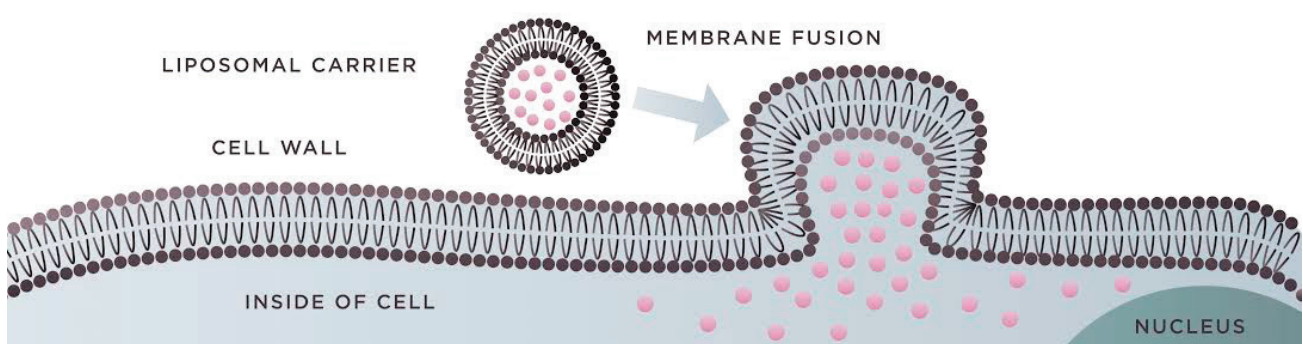
- ✓ Emerging platform for nutrient delivery due to their amphiphilic character.
- ✓ Improves the physical characteristics resulting in a more convenient and effective functionalized product for the consumer.
- ✓ Classified by US FDA as Generally Regarded as Safe (GRAS) at all concentrations.
- ✓ Non-genetically modified grades available.

LECIVA-S25P LECIVA-M25P	Pure lecithin powder from soybean and Sunflower	Emulsifier in oral liquid formulations
LECIVA-S12NF LECIVA-M12NF	Microfiltered viscous liquid lecithin from Soybean and Sunflower	Emulsifier for oral solid/liquid formulations

LIPOSOMES FOR DELIVERING NUTRIENTS

Liposomal delivery system is considered as a modern delivery system to improve the bioavailability of conventional nutrients such as phytoextracts, vitamins and minerals. It is biocompatible, safe and increases the cellular uptake of bioactives by getting absorbed directly in the mucous membranes. This higher absorption, leads to greater efficacy with smaller doses, making it a less invasive option to achieve better results.

LECIVA-S70 LECIVA-M70 LECIVA-S75 LECIVA-M75	Pure Polyunsaturated Phospholipids from soybean and sunflower	Liposome/Phytolipid preparation & in formulations for hard shell capsules
LECIVA-S90 LECIVA-M90	High phosphatidylcholine enriched phospholipids from Soybean & sunflower	Liposomal formulations
Cholesterol	Essential membrane lipid	Maintains stability and structural integrity of liposomes



CORE NUTRITION

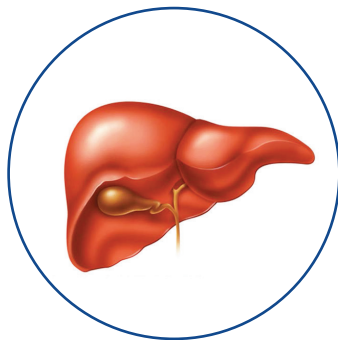
Essential phospholipids (EPL) are a combination of unsaturated fatty acid phospholipids from natural sources like soybean or sunflower.

Phospholipids contribute to the regulation of biological pathways, including cellular communication and synthesis of the neurotransmitter acetylcholine.

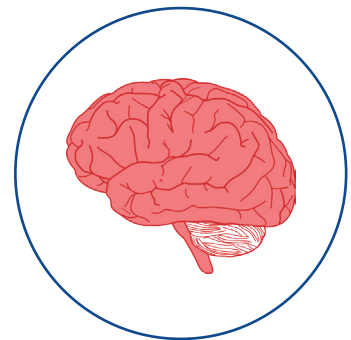
However, to deliver therapeutic benefits of lecithin and phospholipids, solubility is often a rate limiting step. VAV offers ingredients with superior solubility & dissolution profile compared to traditionally available lecithins & phospholipids. Know more from our [Experimental video of solubility comparison of LECIVA-S40L & LECIVA-PRO](#). Their clinical benefits are backed up by thorough research and published studies.



- ✓ Lipid profile modifying abilities
- ✓ Prevents platelet aggregation
- ✓ Increases patient's physical working capacity

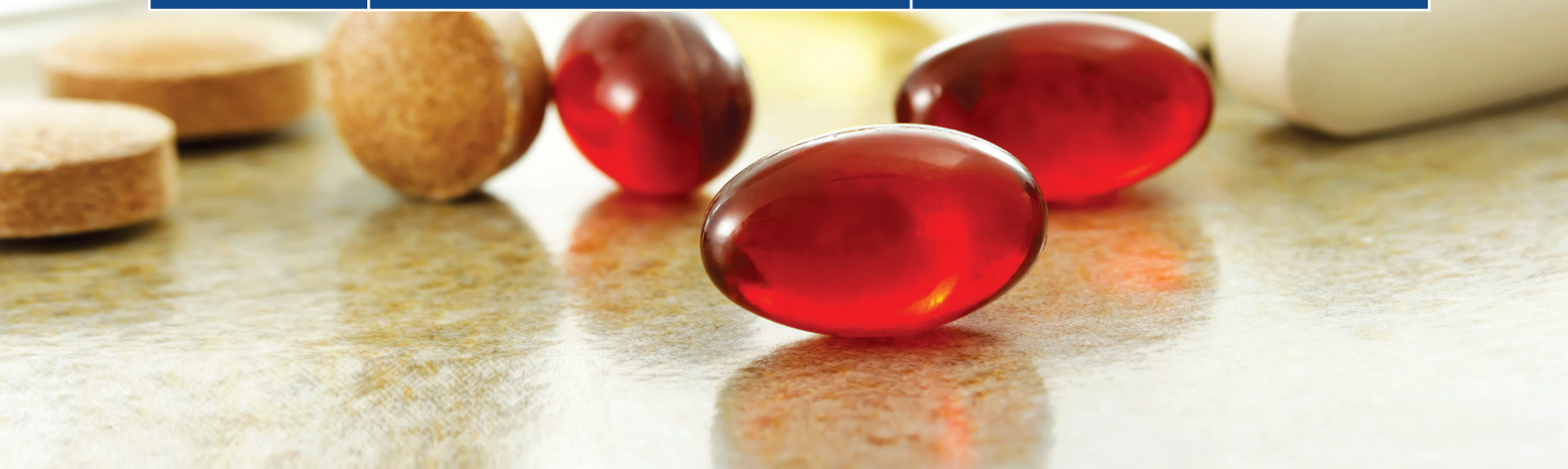


- ✓ A superior protectant against liver damage
- ✓ Against alcoholic & non alcoholic fatty liver
- ✓ Against other liver toxins



- ✓ Key donor of choline
- ✓ For age-related cognitive decline and illnesses
- ✓ Important during pregnancy & infancy.

LECIVA-PRO LECIVA-MPRO	Highly soluble low viscosity liquid lecithin rich in Essential Phospholipid content from soybean and sunflower	For soft gel encapsulation
LECIVA-S30L LECIVA-M30L	Highly soluble low viscosity liquid lecithin rich in Essential Phospholipid content from soybean and sunflower	For ready to drink and oral solutions
LECIVA-S40L LECIVA-M40L	Low Viscosity Liquid Lecithin With High Phosphatidylcholine Content from soybean and sunflower	For soft gel encapsulation
LECIVA-GPCH LECIVA-GPCA	L-alpha Glycerolphosphorylcholine (Choline Available Hydrous And Anhydrous form)	Nootropic agent for oral solid/liquid supplementation and for injectable formulations



PRENATAL NUTRITION

A pregnant woman needs special nutrients for the baby's optimum growth. These essential nutrients include essential fatty acids and choline, both are crucial for a baby's normal well being and neuronal development. VAV offers a range of ingredients that impact expecting mothers and babies' health positively. Know more from our Video "[Phospholipids for Prenatal Nutrition](#)"

LIPOVA-E110	Natural Mixture Of Egg phospholipids and Egg Oil	Source of essential fatty acids
LECIVA-GPCA LECIVA-GPCH	L-alpha Glycerolphosphorylcholine (Choline Available Hydrous And Anhydrous form)	Cognitive development for infants

INFANT NUTRITION

Egg lipids not only mimic the human milk fatty acid composition, they also come naturally with choline (from the phospholipid phosphatidylcholine). They contain cholesterol, vitamin B7 (biotin) and carotenoids (lutein, zeaxanthin) - all fundamental nutrients in the early development of babies.

Studies also found that they protect the mucosa of intestinal tract against the adhesion of pathogenic bacteria, reducing the risk of severe diarrhoea.

Phospholipids derived from egg yolk have been determined to be Generally Recognized As Safe (GRAS) for use as an ingredient in term and preterm infant formula

Egg phospholipids offer:

- ✔ Better Digestibility and Absorption
- ✔ Better Bioavailability (blood-brain barrier)
- ✔ Better oxidative stability compared to triglycerides
- ✔ Presence of LCPUFA - ARA and DHA
- ✔ Favourable ratio of omega-6/omega-3 fatty acids
- ✔ Natural emulsifiers, allowing to avoid synthetic emulsifiers.

LIPOVA-E110	Natural Mixture Of Egg phospholipids and Egg Oil	Used in Conventional infant formula.
--------------------	--	--------------------------------------



SPORTS NUTRITION

Active people, especially intensive athletes and weight trainers, require greater amounts and higher quality of protein than sedentary people. Regular physical training tends to reduce muscle protein breakdown and protein loss from the body. Proteins help for building muscle and improving muscle recovery after intense workouts.

Protein supplements are found to prevent the spike in blood sugar caused by eating carbohydrates alone.

The protein profile of egg yolk makes it an excellent source of nutrients for the human body with better amino acid score than whey protein & egg white protein.

- ✔ Highest content of phosphatin found in nature
- ✔ Free from cholesterol & minimal fat
- ✔ High protein efficiency ratio (PER) with PER of 3.9 out of 4.0
- ✔ High biological value and BCAA content
- ✔ High in sulphur producing amino acids that assist in anabolic hormone production
- ✔ Lactose free and easy to digest

LIPOVA-E200

Fat Free Purified Egg Yolk Protein Powder Concentrate

For muscle recovery, sports nutrition and as protein supplement.

Choline alfoserate supplementation has demonstrated improvement in exercise capacity and increased performance during athletic activity, by facilitating neuro-muscular interaction. Given that cholinergic nerves trigger muscle contraction, and that choline availability is linked to acetylcholine synthesis substances that could augment choline availability believed to have the potential to influence muscular performance.

LECIVA-GPCA LECIVA-GPCH

L-alpha Glycerylphosphorylcholine (Choline Available Hydrous And Anhydrous form)

For solid oral and liquid dosage forms for improved endurance activity



CORPORATE OFFICE

VAV LIFE SCIENCES PVT LTD

51/B Mittal Court, Nariman Point, Mumbai, India
+91 22 22836802 www.vav.in enquiry@vav.in

OPERATIONS

VAV LIPIDS PVT LTD

Plot No. C-76, Mirjole MIDC,
Ratnagiri, India



Disclaimer: All data and recommendations made herein are based on our present state of knowledge. We disclaim any liability on risks or formulae that may result from the use of our products, including improper and illicit use.

DATASHEETS ARE AVAILABLE ON REQUEST
OTHER GRADES AVAILABLE ON REQUEST

FOLLOW US:     