



Sustainable innovation. Healthier lives

## About Us

**Solutex, founded in 2004, specializes in manufacturing highly concentrated omega-3 EPA/DHA fatty acids for the pharmaceutical, nutritional and cosmetic industries, in addition to Specialized Pro-resolving Mediators (SPMs), the active metabolites of EPA/DHA that modulate the natural immune response and encourage resolution of the inflammatory process.**

Our manufacturing operation specializes in supercritical CO<sub>2</sub> extraction and other patented technologies to gently extract and purify polyunsaturated fatty acids obtained from algae and fish oils.

A patented technology platform operating under the rules defining green chemistry does not utilize organic solvents, harsh chemicals, high temperatures or aggressive conditions.

We offer varying ratios of EPA/DHA in addition to custom formulas and purification options, all of which are sustainably sourced and gently processed to your specifications.

From our focus on sustainability to laboratory services including analytic studies, Solutex is committed to providing unique formulations and purification options to meet the demands of the biolipids industry.

### OMEGA-3 ISOLATES

Higher concentrations available in EE and TG forms with the flexibility for customization.



Our patented technology platform provides options for purification, all of which are sustainable and environmentally friendly.



Our facilities include an in-house analytical lab and our operations run 24/7.

Omega-3 fatty acids are vital to healthy cell membrane structure and benefit overall good health.

Unfortunately, our bodies are not capable of producing Omega-3 and we must acquire them through food or dietary supplementation.

Numerous clinical studies have been conducted through the years reinforcing the heart, brain, eye and prenatal health benefits of EPA and DHA. Experts agree these benefits are only achieved through a higher recommended dose than most people acquire through a normal diet<sup>1</sup>. As a result, there is a growing demand for omega-3 rich foods and dietary supplements.

In addition, recent research indicates EPA and DHA are further metabolized within our bodies into SPMs (Specialized Pro-resolving Mediators), lipid mediators with a key role in the resolution of inflammation.

**Solutex has a rigorous process for qualifying the best starting material in combination with patented purification methods which enables us to produce biolipids in higher concentrations.**

<sup>1</sup> de Oliveira Otto MC et al., Circulating and dietary omega-3 and omega-6 polyunsaturated fatty acids and incidence of CVD in the Multi-Ethnic Study of Atherosclerosis. J Am Heart Assoc 2013; Dec 18;2(6):e000506; Masson S et al., Plasma n-3 polyunsaturated fatty acids in chronic heart failure in the GISSI-Heart Failure Trial: relation with fish intake, circulating biomarkers, and mortality. Am Heart J. 2013 Feb;165(2):208-15; Fliesler SJ, Anderson RE. Chemistry and metabolism of lipids in the vertebrate retina. Prog Lipid Res 1983;22:79-131; Carver et al., 2001, Brain Res Bull. 2001;56:79-85;

## Technology Platform



**The Flutex platform contains the most advanced combination of technologies in the lipid industry, combining innovative green chemistry to extract, purify, separate and concentrate the individual fatty acids of omega-3 oil.**

This green chemistry method of fatty acid purification improves the quality of the oil compared to other chemical concentration procedures which create isomers and other contaminants.

Flutex offers a unique point of difference with higher potencies (up to 97%) and the flexibility to customize ratios for condition specific formulas.

Our CO<sub>2</sub> Supercritical Fluid Technology maintains GRAS status and excludes the use of toxic organic solvents used in conventional extraction methods.

We specialize in combining technologies for specific market needs and trends: vegetarian omega-3 oils, Specialized Pro-resolving Mediators (SPMs), lipid emulsions and partial glyceride forms (DG & MAG) for greater absorption.

- ✓ Premium EE, TG, DG & MAG concentrations
- ✓ Low level oxidation parameters
- ✓ 24/7 operations

**SUPER  
CRITICAL CO<sub>2</sub>  
Technology**

**ENZYMATIC  
Process**

**MOLECULAR  
Distillation**

**UREA COMPLEXATION  
for API Production**



**Cleantex is an innovative, gentle purification process that utilizes nitrogen rather than steam, reducing the risk of oxidation.**

Cleantex, a patented<sup>2</sup> purification process utilizing nitrogen, removes elements of contamination including heavy metals, PCBs, dioxins and others.

Taking place at the end of the manufacturing process, this application includes the option of deodorization techniques to eliminate potential residual flavors resulting in a more pleasant tasting oil.



**Omega-3 nano-emulsion technology** designed to completely dissolve when mixed with water-based beverages. A convenient, highly concentrated dosage form with the potential to increase patient compliance due to the ease of swallowing.

We utilize temperatures that are 42% lower than conventional methods of reducing fishy odor and aftertaste.

Finished product applications vary from soft-gels and capsules to emulsions that completely dissolve in water.

Cleantex is an environmentally friendly process and creates zero waste.

**Partnering with  
Solutex means  
joining a global  
initiative to support  
sustainability**

<sup>2</sup> Patented in USA US9309484 and Europe EP2732014

## In-House Analytic Lab



**We are committed to executing reliable, quality analysis and maintaining a solid foundation for analytical test methods and procedures.**

Solutex acquired Inserco Laboratories in 2013 as an expansion to our quality systems and technology platforms. Inserco has a long history of expertise with lipids, providing analytic studies and ensuring ingredients and finished products meet specifications.

Our lab holds ISO 17025 Accreditation which proves Inserco has an acceptable quality management system in place, and it has the ability and competence to provide testing and calibration results.

We work closely with our partners to ensure test methods are appropriate for their intended use by identifying and utilizing a valid method for each established specification.

The addition of Inserco and the collaboration among our team members is critical to our

quality services to ensure precision and reliability of reported results.

Our services are utilized by government agencies, hospitals and universities; our test methods are aligned with GOED's monograph.

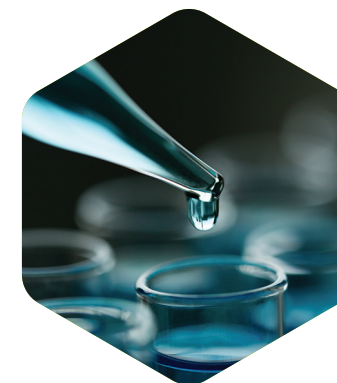
We offer a wide range of testing parameters including:

- ✔ Over 200 different method validations, test panel requirements and support for R&D
- ✔ Stability studies and storage of QC samples
- ✔ Chromatography devices operate 24/7
- ✔ Industry standard accreditation including ISO, AOCS, AOAC, USP, EuPH in addition to method customization specific to ingredients, components or analytes.

### Technological Services – Pilot Plant

An identical platform to our full scale manufacturing operation enables us to develop and test new formulations prior to scaling up for production. The ability to isolate and separate EPA/DHA, and test formulas at a small scale allows flexibility in our process to maximize efficiencies.

## Quality Compliance



**Our facilities maintain cGMP status and operate under a series of strict regulatory requirements and industry certifications.**



Industry compliance



ISO 9001 / ISO 22000

ISO 17025 Accreditation  
Inserco Lab



Board members and active participants



Solutex stands behind the quality of our products



The International Fish Oil Standards Program

The Marine Ingredients Organisation



Friend of the Sea Certification of marine habitat conservation



Kosher certification specific to algae products



Halal Certification



Manufacturer's Validation to produce & market API – Pharma Grade Omega-3

Partnering with Solutex means global quality assurance and compliance

## Omega-3 - Fish sourced



Premium concentrations sustainably sourced, gently processed and tailored to your specifications

### Omega-3 Oil sourced from fish

Solutex specializes in developing custom lipid profiles and ratios. Our green chemistry platform does not require high temperatures, solvents or aggressive conditions.

Options for deodorization and flavor enhancement are available upon request to reduce the potential for fishy aftertaste.

- ✓ Tailored ratios up to 97% EPA, 90% DHA and 35% DPA
- ✓ Premium concentrates in EE, TG & DG forms
- ✓ Shelf life: 36 months
- ✓ Non-GMO

ISOLATES				TOTAL
		EPA mg/g	DHA mg/g	Omega-3
Omegatex 90/00	EE	900	–	900
Omegatex 63/21	EE	630	210	900
Omegatex 54/30	EE	540	300	900
Omegatex 45/35	EE & TG	450	350	850
Omegatex 60/20	EE & TG	600	200	850
Omegatex 48/32	EE & TG	480	320	850
PLATINUM				Omega-3
Omegatex 80/00	EE & TG	800	–	800
Omegatex 00/76	EE & TG	–	760	800
Omegatex 55/20	EE & TG	550	200	800
ULTRA				Omega-3
Omegatex 00/70	EE & TG	–	700	750
Omegatex 50/20	EE & TG	500	200	750
Omegatex 46/18	EE & TG	460	180	700
CORE				Omega-3
Omegatex 36/24	EE & TG	360	240	650
Omegatex 10/50	EE & TG	100	500	650

## Omega-3 - Algae sourced



Marine micro-algae is one of our planet's most sustainable and renewable sources for Omega-3

### Omega-3 Oil sourced from algae

Algae oil in its natural form is a triglyceride and is fully sustained through our extraction process. Additional steps can be executed during extraction to further concentrate beneficial polyunsaturated fatty acids to provide product differentiation.

- ✓ *Schizochytrium* sp, micro-algae
- ✓ European sourced
- ✓ Materials valid worldwide EFSA, TGA, FDA, KFSA
- ✓ Shelf life: 24 months
- ✓ Tailor-made potencies in TG form
- ✓ Highly recognized ingredient used in infant formulas
- ✓ Non-GMO/Vegan

PLATINUM				TOTAL
VEGAN EPA & DHA		EPA mg/g	DHA mg/g	Omega-3
Omegatex Algae 30/20	TG	300	200	500
Omegatex Algae 20/50	TG	200	500	700
Omegatex Algae 10/60	TG	100	600	700
Omegatex Algae 12/48	TG	120	480	600
Omegatex Algae 10/45	TG	100	450	600
VEGAN DHA		DHA mg/g		
ISOLATES				
Omegatex Algae 80	TG		800	
PLATINUM				
Omegatex Algae 75	TG		750	
Omegatex Algae 70	TG		700	
Omegatex Algae 65	TG		650	
CORE/ULTRA				
Omegatex Algae 60	TG		600	
Omegatex Algae 53	TG		530	
Omegatex Algae 40	TG		400	

Partnering with Solutex provides flexibility and differentiation within your product line

## Innovation – MAG



**A highly advanced omega-3 ingredient, MaGOmega® is manufactured using innovative enzymatic transesterification technology.**

Sourced from algae – one of our planet’s most sustainable and renewable sources of omega-3 – MaGOmega® is a patented, vegan Mono-glyceride (MAG) form.

**Small but mighty: all the benefits of omega-3 in a lower dosage.**

The unique composition of MaGOmega promotes bioavailability, allowing it to auto-emulsify and facilitate absorption of EPA and DHA, the essential fatty acids critical to human health.

It is designed to take advantage of the natural lipid absorption capacity of the human body, which favors monoglycerides and free fatty acids, creating favorable enzymatic conditions in the intestine. This enhances the absorption of EPA and DHA, when compared to triglycerides (TG), and ethyl esters (EE).

Algae	EPA mg/g	DHA mg/g
MaGOmega 0060		600
MaGOmega 0053		530

\*As TG

- ✓ Kosher certified
- ✓ Fermentation in North America & Europe, concentration in Spain
- ✓ Highly concentrated by our leading Flutex® technology
- ✓ Ideal for vegans & sustainability-focused markets
- ✓ Unique and IP protected<sup>3</sup>
- ✓ GRAS status
- ✓ Shelf-life: 12 months
- ✓ Tailored ratios upon request

Partnering with Solutex encourages market leadership through innovation

<sup>3</sup> Patented in USA (US8,119,690; US8,198,324); Canada (CA2672513; CA2677670); Australia (AU2008215077); and Europe (EP2121576B1).

## Innovation – SPMs



**A unique ingredient – concentrated in Specialized Pro-Resolving Mediators (SPMs), designed to support the body’s natural capacity to resolve inflammation.**

SPMs are lipid mediators essential to promoting resolution of the inflammatory process and a return to homeostasis (body’s equilibrium)<sup>4\*</sup>.

Natural metabolites obtained through a conversion from EPA and DHA, SPMs are bio-active mediators that assist the immune system’s natural response<sup>4</sup>, encouraging resolution of the inflammatory process.

Unlike conventional treatments, SPMs do not block inflammation, instead they support the body’s ability to naturally terminate the inflammation process<sup>4\*</sup>.

The foundation for Lipinova is the unique combination of fractionation and purification techniques applied to Omega-3 rich oil.

Lipinova is the result of extensive research and development in conjunction with leading specialists and universities.

The Resolution Physiology Laboratory at Solutex substantiates the correlation between SPMs and resolution by observing SPM levels of activity and inflammatory parameters in biological samples.

- ✓ SPMs do not suppress the body’s natural immune response<sup>4</sup>
- ✓ Effectiveness demonstrated through clinical evidence
- ✓ Unique and IP protected<sup>5</sup>
- ✓ Non-GMO and gluten-free
- ✓ Shelf life: 24 months



**Introducing our new division – Azur Global Nutrition.** Azur specializes in developing naturally sourced, science-backed immune-nutrition solutions to help address the increasing challenge of inflammatory health conditions. Visit [Azur-gn.com](http://Azur-gn.com) for more information.

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

<sup>4</sup> Serhan CN, Savill J. Resolution of inflammation: the beginning programs the end. Nat. Immunol. 2005;6:1191-1197. Serhan CN. Pro-resolving lipid mediators are leads for resolution physiology. Nature 2014; 510:92-101.

<sup>5</sup> Patented in USA (US10,568,858; US10,653,703); Australia (AU2013259503); New Zealand (NZ702325); Japan (JP6370775). Patent pending in Europe and Canada.

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