

Oceans of possibilities

A world leader in marine Omega-3 concentrates



Oceans of possibilities

We've been innovating for hundreds of years. Now we're shaping the future.

EPAX® HAS BEEN AN INNOVATOR FOR OVER 180 YEARS

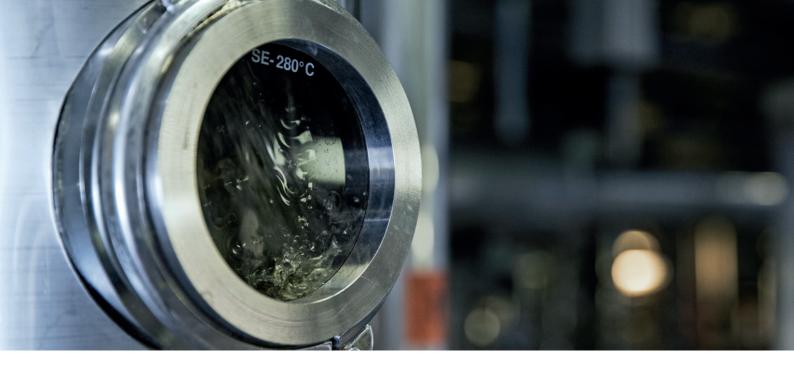
Since 1838, when we began producing premium quality cod liver oil, we've transformed the marine ingredients sector. We invented the technology to concentrate fish oil as an ethyl ester, and to re-esterify oils back to TG-form. And we were the first company to create condition-specific EPA/DHA ingredients backed by science.

Today we continue to deliver Omega-3 products of unmatched purity and quality. But we're also exploring new marine ingredients and helping manufacturers meet changing market needs.

As a vertically integrated company, we can guarantee that we only ever use sustainable and traceable raw materials. And our commitment to purity, quality and innovation means that brand-owners and health-conscious consumers alike get the full benefit of everything the ocean has to offer.

No-one understands marine ingredients like we do.





Purity beyond industry standards

Purity is a never-ending focus for Epax®. In our quest to deliver ingredients free from environmental and oxidative impurities, we go above and beyond industry standards.

Our specifications not only meet, but surpass the requirements of:

- The EU and US Pharmacopoeias
- The Codex Alimentarius standard
- The GOED Monograph
- IFOS 5-star rating standards

A NEW APPROACH TO PURIFICATION

Our Omega-3 process begins with high-quality, human-grade crude oil. It is purified and concentrated using a proprietary process that allows us to avoid the use of solvents such as hexane, acetone, methanol, petroleum ether, and excessive heat.

We then monitor for 22 environmental and oxidative impurities. Testing shows that 75% of these are repeatedly below detection limits

set by leading external laboratories, and we even test for several parameters that are not regulated.

STRICTER OXIDATION LIMITS

Oxidation is an important indicator of the quality of oil. Low oxidation levels can help guard against the formation of free radicals, improve sensory characteristics and extend shelf life. Our oxidation limits are less than half of those set in the GOED Monograph.

In recent years, we've made major investments in our production facilities and distillation processes, allowing us to create new gently processed, ultra-pure products. We can also provide customized specifications to help meet local regulatory requirements.



Quality in everything we do

While most companies talk about quality, Epax® guarantees it. Quality is built into everything we do – from the ingredients we use, to our expert product development and rigorous manufacturing standards.

We have pharma-compliant quality systems in place – not just for our pharmaceutical range but for all our products and throughout our entire supply chain.

All our products come with a three-year minimum shelf life guaranteed by an extensive stability testing program. They also meet the world's toughest quality demands, including:

- Pharma-grade US FDA approval for manufacture of pharmaceutical intermediates (we're one of the few nutraceutical suppliers to have had it continuously since 2012)
- Norwegian Medicines Agency approval for manufacture of Active Pharmaceutical Ingredients (APIs)
- Full cGMP compliance

HASSLE-FREE SERVICE

But we don't just guarantee quality in our products – we take huge pride in the reliable, hasslefree service we offer our customers. They know that working with us means a simpler process with fewer challenges.

We make it easy to speak to the right person, with the right knowledge, at the right time. Of course our many skilled, experienced staff are available by phone and email, and we also have a team on-site to make communication even smoother.

Most importantly, we deliver on time. In 2019, our delivery performance rate was 95%



Innovation supported by science

Epax® was the first company to create condition-specific EPA/DHA ingredients backed by clinical studies. Today research and innovation remain crucial strands of our company DNA.

In recent years significant investment in R&D has allowed us to develop new products and state-of-the art technologies. Our proprietary distillation process, for example, allows us to deliver even higher levels of EPA/DHA concentration.

EXPLORING NEW OPPORTUNITIES

It's not just about Omega-3. The full potential of the ocean as a source of ingredients is yet to be realized – and Epax® is at the forefront of exploring it.

Our in-house R&D department has patents in hand and exciting new concepts in the pipeline. We're constantly learning more, broadening our product platform and offering new condition-specific formulations.

Companies that work with us get to be the first to benefit from these new possibilities.

A UNIQUE COMMITMENT TO SCIENCE

When it comes to scientific substantiation, noone comes close to Epax®. The safety and efficacy of our products have been tested in over 100 peer-reviewed clinical studies, more than any other marine Omega-3 company. This body of research covers a wide range of categories, including cardiovascular health, joint health, cognition and immunity.

Further growth in our sector depends on the continuation of high-quality, unbiased research. That's why we have more studies in progress and why we offer study materials to scientists free of charge.

When you choose Epax®, you get more than just safe, pure ingredients. You can be confident you're working with a partner with a genuine dedication to scientific exploration.

Maximum specification limits for environmental pollutants

		EU Legislation	GOED Vol. Monograph	Epax*
As, Arsenic	mg/kg	NA	0.1	0.1
Cd, Cadmium	mg/kg	NA	0.1	0.005
Hg, Mercury	mg/kg	0.5	0.1	0.005*
Pb, Lead	mg/kg	0.1	0.1	0.025
DDD1	mg/kg			0.005
DDE ²	mg/kg			0.005
DDT ¹	mg/kg			0.005
НСВ	mg/kg			0.005
PCBs all 209	mg/kg	0.2003	0.09	0.01
Dioxins + Furans (PCDD + PCDF) (TE WHO)	pg/g	1.75	1.75	1
Dioxin-like PCB's (TE WHO)	pg/g	NA	3	2
Dioxins + Furans + Dioxin-like PCB's (TE WHO)	pg/g	6.0	3	2.5
Benzo(a)pyrene	ng/g	2.0	NA	1.0
Sum 4PAH	ng/g	10.0	NA	5.0
Brominated flame retardants	mg/kg			0.002
DEHP ⁴	mg/kg			1

Maximum specification limits for oxidative compounds

		Ph. Eur	GOED Vol. Monograph	Epax*
Peroxide Value TG/EE:	meq/kg	10.0	5.0	1.21
Anisidine Value: TG EE		30.0 20.0	20 20	8¹ 8¹
Totox:		NA	26	10
Absorbance: TG EE	AU AU	0.73 0.60	NA NA	0.60 0.50
Oligomers: TG EE	A% A%	3.0 7.0²	NA NA	1.0 6.0²
Trans fatty acids (sum of 10):	%	NA	NA	0.9³
Acid Value: TG EE	mg KOH/g	3.0 2.0	3 3	1.0 1.0

Oligomers + partial glycerides % of total fatty acids



Condition-specific formulas for health

The Epax® Omega-3 portfolio includes a range of uniquely formulated products. With different concentrations and ratios of EPA and DHA, each is optimized to address a specific health concern:



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Cardiovascular Health

Numerous clinical studies have demonstrated the benefits of Omega-3 for heart health.* EPAX® 6000 has been tested in a significant number of these published, peer-reviewed studies.

- Balanced EPA:DHA oils

Cognitive Health

Poor memory has been associated with low levels of DHA, the principal fatty acid in the brain. Clinical studies have demonstrated that EPAX® 1050 supports cognitive health as we age.*

- High DHA oils



Healthy Inflammatory Respons

The typical western diet has a ratio of Omega-6 to Omega-3 fatty acids that can lead to low-grade chronic inflammation. **EPAX* 4020** can help restore a healthy balance.*

- Balanced EPA:DHA oils

Eye Health

DHA provides the building blocks for protective compounds that support retina cell functions. EPAX® 1050, with its high DHA content, has been formulated to support eye health.*

- High DHA oils





Joint Health

The flexibility of joints is a key element of quality of life and healthy aging. **EPAX* 4510** delivers high levels of EPA to provide nutritional support for healthy joints and ligaments.*

High EPA oils

Prenatal and Postnatal Health

The last three months of pregnancy and the first year of life are critical periods. **EPAX®** 1050 has a high DHA content, which has been shown to support healthy brain and eye development in infants.*

- High DHA oils





Mood

Maintaining emotional balance can be challenging. EPAX* 6015 is a clinically supported Omega-3 concentrate with a high level of EPA designed to support healthy mood.*

- High EPA oils

Sports Nutrition

Omega-3s are an ideal choice for active consumers seeking to maximize the benefits of their workouts. EPAX® 4020 offers heart and joint health support, as well as healthy inflammation response.*

- Balanced EPA:DHA oils, high DHA oils



Metabolic Syndrome

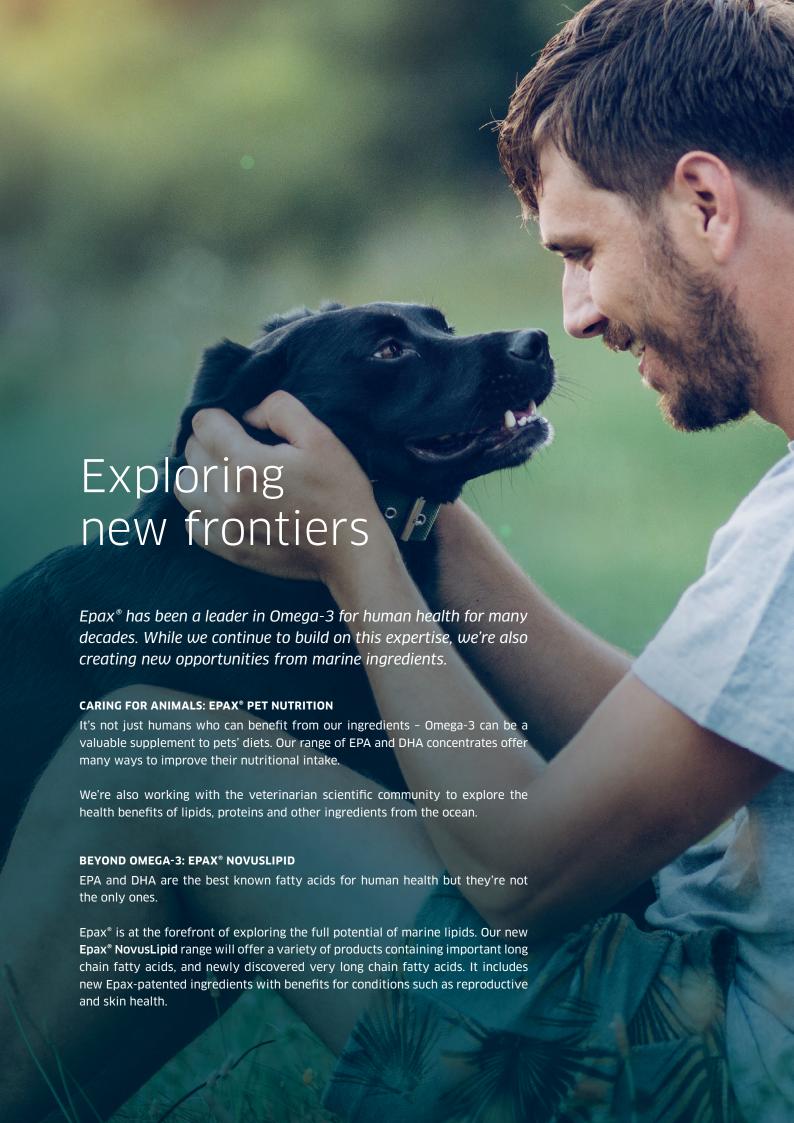
Metabolic syndrome is the term for a cluster of conditions – increased blood pressure, high blood sugar, excess body fat, and abnormal cholesterol or triglyceride levels. Together, they can increase the risk of heart disease, stroke and diabetes.

EPAX® 1050 TGN may help with the management of this condition.*

- High DHA oils

In addition to our standard product list, we can create bespoke formulas on-demand. In fact, 45% of our product range is custom-made.

*These statements have not been evaluated by the Food and Drug Administration.



A company with the right values

Epax® is a company you can rely on to take its responsibilities seriously. We care about healthy oceans, strong communities and fair working practices – and we hold ourselves accountable.

AN UNWAVERING COMMITMENT TO SUSTAINABILITY

We believe in responsible management of marine resources and oceans that are kept clean and free of waste. This is another area where we have set new standards, in 2007 we became the first Omega-3 ingredient company to receive Friend of the Sea sustainability certification.

In 2010, we launched Epax® EcoVision, our environmental stewardship policy. It sets out our long-term commitment to responsible and sustainable operating practices. These include a very strict approach to fishing regulations – we never take material from unregulated or unsustainable sources. All the crude oil we use comes from fisheries managed according to the FAO Code of Conduct for Responsible Fisheries.

Our distillation process is the most environmentally friendly way to achieve highly concentrated products without creating unwanted waste materials. And we are continually looking for new ways to further reduce our carbon footprint – for example, we are switching to renewable energy wherever we can.

We hold a MarinTrust certificate, a 3rd party verification of responsible business conduct by MarinTrust Ltd. Our environmental management system is certified ISO 14001 by Bureau Veritas.

TRACEABILITY

The traceability of marine ingredients is crucial. It is a prerequisite for sustainability and for quality at every stage of the supply chain.

However, it requires extensive tracking and global monitoring of the fishing, transportation and manufacturing processes.

Epax® is part of a vertically integrated supply and manufacturing chain. This means we can guarantee quality control and track our ingredients all the way from the ocean to the finished product.













Part of Pelagia

A forward-thinking corporation

Epax is owned by Pelagia AS, a leading producer of fish products for human consumption. It is also an important supplier of ingredients for fish and animal feed, protein concentrate, fish meal and fish oil.

Pelagia is a forward-thinking company committed to the responsible use of resources. Across its whole business it insists on 100% use of fish, which is why Epax has a strict zero-waste policy.

Pelagia's Health Division, of which Epax is part, is constantly working to identify new marine ingredients, develop new technologies, and guarantee a stable supply of premium-quality ingredients.

Based in Norway, Pelagia AS also has offices in the UK, Ireland, Denmark and the Ukraine. It is jointly owned by Austevoll Seafood ASA and Kvefi AS.

COMMUNITY VALUES

Epax® is based in Ålesund, the most important fishing harbor in Norway. Perched on a series of small islands on the coast, it's surrounded by the Sunnmøre Alps and beautiful deep fjords.

We're proud to play an active role in the Ålesund community. We also love the fact that we're part of a society where there are strict protections on employment rights, which underpins our commitment to fair labor practices.



FOOD

Fresh Frozen Marinated

HEALTH

EPAX® Core Concentrates EPAX® Ultra Concentrates EPAX® Pet Nutrition EPAX® NovusLipid

FEED

Marine Protein Marine Oil Non Marine ingredients





Say hello to our experts

Our expert staff across the world can help your business harness the potential of marine ingredients. Visit Epax®.com or get in touch to say hello:

EPAX® SALES AND MARKETING

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Goerlich Pharma GmbH goerlich-pharma.com

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Silvaco A/S silvaco.dk

North America

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South Korea

SungWoo Interchem Corp. sungwookr.com

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Thailand

Jebsen & Jessen Ingredients (t) Ltd ingredients.jjsea.com

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