



## EPAX AS

EPAX AS is one of the world's leading producers of concentrated Omega-3 products today, and it sells them in bulk to capsule manufacturers and marketing companies worldwide. The company's focus for a number of years has been to develop and produce high-quality Omega-3 products, and consumer safety has been its overriding goal. This effort has earned EPAX international recognition of its products, which are considered the purest on the market.

### RAW MATERIALS

EPAX primarily uses raw fish oil produced in Peru. This is because these raw fish oils hold the highest quality, both in terms of purity and Omega-3 content. In comparison, the content of environmental toxins such as dioxin and PCB in fish oil from the North Sea is many times higher, and the level of Omega-3 is much lower. To secure crude oil supplies, EPAX has a long-term strategic supply agreement with Peruvian Austral Group SAA. The company has been approved in accordance with a number of quality systems such as ISO, HACCP and GMP. The factories have modern production equipment, most of which is manufactured in Europe. Austral Group SAA is also approved for the production of goods for human consumption, and the fish oil supplied to EPAX has been certified by the veterinary authorities for this use. Raw fish oil is transported in containers approved for the transport of food.

### QUALITY CONTROL

EPAX has been certified by the Norwegian Food Safety Authority for the production of food and by the Norwegian Medicines Agency for the production of pharmaceutical substances. All raw materials used are always quarantined and analysed for a number of parameters before further processing. The results are compared with the raw material specifications, and the raw material is only approved for use if the results do not deviate from the specifications. If the specifications are not met, the raw materials are returned. All analysis results are stored for ten years, and statistics are prepared to identify any trends. Analyses take place throughout the production process, and all finished goods are also analysed. All results are compared with specifications, and if the result deviates from the specification, the product will be destroyed. EPAX carries out approximately 15,000 analyses a year. Analyses include oxidation (whether the oil has turned rancid), Omega-3 content, heavy metals, PCB, dioxin, brominated flame retardants, unwanted organic components and trans-fat. The EPAX products have full traceability throughout the production process, from the fish is caught until the finished product.

### PRODUCTION

EPAX has highly sophisticated production equipment and has invested more than NOK 200 million in its production plants since 2001. All equipment is made from acid-proof steel and designed in accordance with hygiene principles. The production equipment and storage tanks form a closed, nitrogen-filled system with no air, this to prevent the oil from oxidising (turning rancid). The oil is refined very gently under vacuum, and not under high temperatures. The production process, which consists of a number of complex individual processes, takes 6-8 weeks. This is to remove water and dirt, free fatty acids, saturated fat and non-Omega-3 fatty acids from the oil, as well as any environmental pollutants, heavy metals and oxidation products, reduce cholesterol and concentrate the Omega-3 contents. The refined oil is then put into barrels, to which a little antioxidant is added before they are topped with nitrogen.

## THE PRODUCT

The extensive refining process results in a product with very high purity. There are various international requirements and guidelines for environmental toxin and oxidation product contents in place to ensure consumer safety, such as European Pharmacopoeia and GOED Voluntary Monograph, and EPAX has its own internal requirements and guidelines which are the strictest in the industry. EPAX carries out continual product shelf life studies, and these studies have documented that the products have a minimum shelf life of two years. In practice, no significant increase of oxidation is found during this period. All finished products have been thoroughly analysed and are issued with analysis certificates and health certificates from the Norwegian Food Safety Authority. The products form part of health food products sold in capsules or bottles. The products' high degree of purity means that they are almost free of taste and smell, and they are therefore also used as additives in foodstuffs. EPAX products are extremely well-documented, and have been part of a number of clinical medical studies over the years. More than 4,000 people have participated in the studies, and no negative side-effects have been identified.

## CAPSULE

EPAX does not supply products in capsules or other dosage formats ready for consumption, but sells its products in bulk to capsule manufacturers and marketing companies. Capsules are very well suited for Omega-3 products. This is because the capsule protects the oil from air and water, thus protecting the oil from turning rancid. In addition, the capsule contains a defined amount of product, making it easy to ensure the correct daily dosage.