

What you should know about Neptune Krill Oil

Neptune Technologies & Bioresources Inc. (Neptune) is the pioneer and has always been worldwide leader of the Omega-3 Krill Oil market. In fact, Neptune has single handedly created this market ever since its inception more than a decade ago. Neptune Krill Oil (NKO®) is a whole lipid oil extract of Antarctic krill (*Euphausia Superba*), a shrimp-like creature inhabiting cold waters of the ocean. Antarctic krill have a life span of about 5 to 10 years and are considered to be a keystone species. NKO® is distinct from every other marine oil due to the fact that the omega-3 fatty acids, EPA and DHA, are attached to and carried by phospholipids. Phospholipids are a major component of all biological membranes and contribute to the membrane's permeability and fluidity. Due to their amphipathic nature, having both lipid soluble and water soluble, phospholipids act as superior delivery systems. Most phospholipids in NKO® also contain choline, a small amine known as a component of the neurotransmitter acetylcholine. By weight, NKO® is comprised of at least 30% EPA and DHA and 40% phospholipids. Most of the EPA and DHA in NKO® are structurally intermingled with phospholipid molecules mimicking the way these nutrients occur naturally in cell membranes. In addition, NKO® contains a powerful antioxidant known as astaxanthin which has been shown to be up to 300 times more powerful than Vitamin E. The market has experienced a great increase in consumer awareness about Omega-3 and more recently this awareness has been directed towards the added health benefits from consuming omega-3 from krill oil. To this date NKO® remains to be the only krill oil with clinically proven human health benefits in cardiovascular, cognitive, joints and women's health.

Sustainability

The issue of sustainability is a very important one and has been getting its fair share of exposure. Sustainability is about living and working in ways that meet and integrate existing environmental, economic and social needs without compromising the well-being of future generations. Fortunately, the Antarctic Krill Biomass is under the supervision of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). CCAMLR is the only official and reliable international organism involved in the krill fishery management. CCAMLR consists of 25-state members and is a unique organisation because it involves the governments of many nations, as well as concerned stewardship organisations, like Antarctic and Southern Ocean Coalition (ASOC), which Greenpeace is a member of. CCAMLR establishes detailed precautionary measures to assure and confirm the ecological sustainability of harvesting the Antarctic krill species. According to published data, CCAMLR reports that less than 2% of the precautionary catch limit is actually harvested and the actual total annual harvest of Antarctic krill equals about 0.15 % of the baleen whales krill consumption. The latest catch limit of 2008/2009 corresponds to 1.56% of the total biomass of 420 Million tons. The total catch for 2008/2009 corresponds to 0.03% of the total biomass. Neptune only uses vessels that are licensed by the CCAMLR and operate under its strict guidelines.

Traceability

There are three main pillars to traceability systems: the identification of the biomass, the ability to follow their

movement, and the identification of departure and destination premises. Many industry sectors in Canada have solid traceability systems that have proven to be useful in emergency management. Neptune operates under the supervision of the Canadian Food Inspection Agency (CFIA) and is required to provide all necessary documents that ensure traceability before issuing a Sanitary Certificate for shipping. Information such as quantity of capture, time of capture and size of krill are just a few of the extensive list of necessary information. The CFIA, who issues a Sanitary Certificate, on the basis of the recorded information is actually the best guarantee of the 100% traceability of NKO®.

Health Canada Approved Health Claims

Another hot topic which is the primary focus of many markets, regions and organizations is "Health Claims". Health claims are becoming among the most important drivers influencing the purchasing of Omega-3 or any other supplements worldwide. Recently, the Canadian Minister of Health has approved exclusively for NKO® therapeutic and risk reduction claims, corroborating aspects of Neptune's clinical research and substantiating NKO® safety and effectiveness on certain prevalent chronic diseases. Substantial preclinical and clinical evidence reviewed by Health Canada relating to the safety and effectiveness of NKO® lead to the approval of the following fundamentally competitive health claims:

1. Cardiovascular health (in conjunction with conventional statin therapy):
 - a. Helps to reduce the levels of LDL cholesterol:
2 softgels (1g) per day
 - b. Helps to increase the levels of HDL cholesterol:
2 softgels (1g) per day
 - c. Helps to reduce the levels of triglycerides:
4 softgels (2g) per day
2. Joint health/Inflammation
 - a. Helps to reduce C-reactive protein levels, a clinical marker of inflammation: 1 softgel (0.5g) per day
 - b. Helps to reduce pain associated with osteoarthritis:
1 softgel (0.5g) per day
3. Women's Health:
 - a. Helps to relieve symptoms of premenstrual syndrome (PMS): 4 softgels (2g) per day
 - b. Helps to relieve symptoms of dysmenorrhea:
4 softgels (2g) per day

Contrary to fish oil, Health Canada approved a stronger claim for NKO® for cholesterol with a decrease of LDL (bad cholesterol) and increase of HDL (good cholesterol) using only two softgels per day as well as an anti-inflammatory claim using only one softgel per day and a specific claim for premenstrual syndrome (PMS). The NKO® approved claims are competitive when compared to the already approved claims for fish oils since not only have they been accepted at significantly much lower doses, but they also offer more specific health benefits in cardiovascular, joint and women health

The Health Canada health claim review process is considered one of the most rigorous worldwide, recognized as a model among certain global regulatory authorities. The review process involves an extensive assessment of the accuracy, validity and evidence supporting the proposed clinically proven health claims.

This outstanding achievement reinforces Neptune's position as the market leader and NKO® as the golden standard in the krill oil market.

For more information about Neptune, NKO® or the NKO® approved health claims, please visit:
www.neptunebiotech.com
www.neptunekrilloil.com
www.myNKO.com