



# FLEXITECH™

IMAGINE THE POSSIBILITIES





Flexitech™ is a patented technology platform used exclusively by Aker BioMarine to create better krill oil products that are more appealing to brand owners, encapsulators, formulators and consumers. It gives us the flexibility to up-concentrate krill oil's various beneficial components, such as phospholipids and omega-3s. It also allows us to remove the salts in krill oil, which can lead to off odors and taste.

Some of our newest product introductions using the Flexitech™ Technology Platform include Superba2™, the next generation of Superba™ krill oil, as well as SuperbaBoost™, which is our first krill oil concentrate.

This new line of products – as well as future products – manufactured using our Flexitech™ process does not involve any form of high temperature treatment such as molecular distillation. Instead, it relies solely on low temperature and efficient fractionation methods that remove unwanted salts and other polar constituents, and in the case of SuperbaBoost™, increase the relative amount of phospholipids by mechanical removal of triglycerides. None of these processes involves the use of other solvents besides ethanol and water.

Today's omega-3 supply chains are fragmented and complex. Fortunately, Aker BioMarine takes the confusion out of this situation because we own and control 100% of our supply chain – from catch to capsule. So what does this mean exactly? It starts with the two fishing vessels we own and operate in the Southern Ocean. Our proprietary Eco-Harvesting® technology ensures a gentle catch process, which preserves the nutritional integrity of the krill, while also limiting environmental impact and eliminating by-catch. These ISO certified vessels are essentially food production facilities on water, where we process the krill we catch

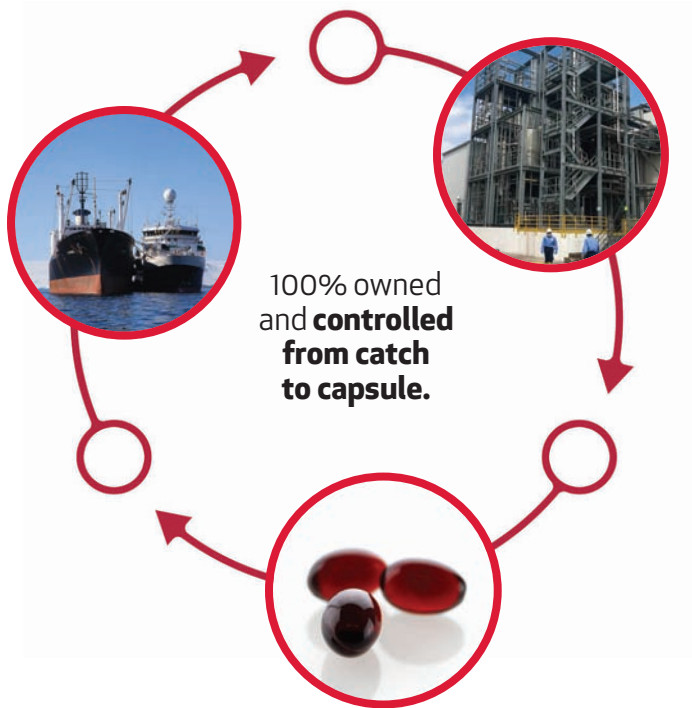
into meal. At the end of this production process, the meal makes its way to our 180,000 square foot NSF GMP facility in Houston, TX, where we extract the oil using our newly acquired technology, Flexitech™, to produce Superba2™ and SuperbaBoost™.

We are proud of the advancements we've made in krill harvesting as well as manufacturing, but some of our greatest achievements are represented in the full range of services we offer in support of the Superba™ brand. These include product development collaboration, research support, regulatory advice and a variety of marketing tools.

Further, Superba™ Krill is protected by four US patents: 9,034,388; 9,028,877; 9,078,905; and 9,072,752. These patents cover the process by which Superba™ krill is harvested, manufactured and processed, as well as its composition and encapsulation. These patents further solidify Aker BioMarine's position in the market and add a layer of protection for brand owners who use Superba™ in the marketplace.

In the quest to remain active, relevant, innovative and vigilant, we believe we've set the right course for the future of the krill oil market. Come join us on this journey – where the possibilities are endless.

Benefits of Aker BioMarine's **new facility and production process**



**New facility + novel production process =** the future of krill oil

**Key benefits for Superba™ customers:**

- 1** **100% controlled value chain:** secure supply volume & product quality and seamless service to customers
- 2** **Improved physical properties:** improved encapsulation process and consumer attractiveness
- 3** **Increased concentration of actives:** improved clinical effect and/or reduced capsule size/daily dosage and additional health claims
- 4** **Full flexibility for krill oil innovation leader:** conduct new product development and create unique product formulations to continuously launch innovations in the krill oil space

Aker BioMarine owns and manages the **1000 MT krill oil manufacturing site in Houston, Texas.**

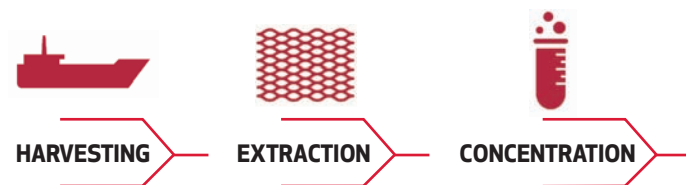


**Our Manufacturing Capacity is More Than Triple the Size of the Next Largest Krill Oil Supplier**

Our new processing technology **will change the game**



**Aker BioMarine is changing the game** by investing in novel and exclusive processing technology.



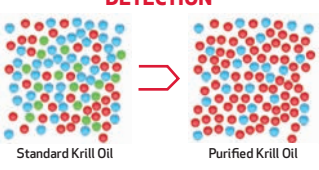
**This new technology is a smart move** for Aker BioMarine and the krill oil market.

- 1** **Detection**  
Removal of salts and key agents causing off smell and taste
- +**
- 2** **Concentration**  
Up concentrating the valuable phospholipid fraction

**By further processing krill oil**, we are able to improve smell and visual appearance, as well as encapsulation characteristics.

**1**

**DETECTION**



● PL (phospholipids)  
● TG (triglycerides)  
● Salts (e.g. TMAO)

Standard Krill Oil      Purified Krill Oil

**Technical improvements**

- Deodorized
- Reduced viscosity by 50-70%
- Clear red colored oil

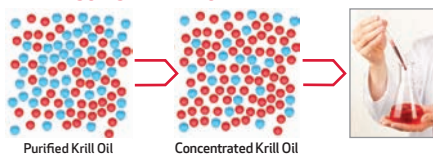
**Benefits for customer**

- Significantly reduced smell
- Improved/easier encapsulation
- Better visual impression by consumer

**Concentration of the phospholipid fraction** will enhance the composition and benefits of krill oil.

**2**

**CONCENTRATION**



● PL (phospholipids)  
● TG (triglycerides)

Purified Krill Oil      Concentrated Krill Oil

**Technical improvements**

- Phospholipids (PL) increase by up to 50%
- EPA and DHA bound to PL increase by up to 40%
- Total EPA and DHA increase by up to 20-30%

**Benefits for customer**

- Choline levels increase by up to 40%
- Potential additional health claims
- More potency per capsule

## Expanding the Superba™ Family

**Using our new processing technology, the Superba™ family will be able to expand.**

**Superba™ Krill** will remain our umbrella brand and starting material. But this new processing technology will allow us to create a broader and more potent product portfolio.

**Today there is:**

- SUPERBAKrill™
- SUPERBA2™
- SUPERBABoost™

**And tomorrow there could be:**

- Superba™ Sport
- Superba™ Derm
- Superba™ Plus

**Bringing the best of all worlds together** – our new Open Innovation program invites global experts to collaborate on krill oil.

**The program offers industry and academic partners:**

- Free supply of products
- Support in formulation development
- Access to our comprehensive pre-clinical and clinical database
- Expert support from the Aker BioMarine R&D team
- Resource sharing for developing unique end-product concepts and initial commercialization
- Clinical trial design support



New claims dossier **offers comprehensive guidance to US customers.**



**Claim areas include:**

- Sustainability/environmental
- Omega-3 uptake
- Cardiovascular health
- Brain/eye health
- Liver health
- Sports nutrition/exercise
- Nutrient content claims
- General claims (no fishy aftertaste, one of the cleanest oils from marine sources)

## Focus on the future

Our new processing technology signals a bright future for the krill oil market. With the ability to customize krill formulations, the product development opportunities are endless. Be part of the future with us – it's going to be an exciting ride.





INTRODUCING...  
**SUPERBA2™**

IT'S LITTLE, RED AND  
MORE POWERFUL  
THAN EVER.

- New & Improved Formulation
- Patented & Exclusive Technology
- Made in the USA
- Enhanced Encapsulation Properties
- No Smell or Taste
- Technologically Superior
- Certified 100% Sustainable & Traceable
- Produced through a Vertically Integrated Supply Chain that is 100% Owned & Controlled by Aker BioMarine

 **SUPERBAKrill™**

[www.superbakrill.com](http://www.superbakrill.com)



**Aker BioMarine Antarctic US**  
410 Newport Way NW, Ste. D  
Issaquah, WA 98027  
206-855-6736

**Aker BioMarine AS**  
Oksenøyveien 10  
P.O Box 496  
NO-1327 Lysaker  
Norway  
47-24-13-00-00

[info.us@akerbiomarine.com](mailto:info.us@akerbiomarine.com)  
[www.akerbiomarine.com](http://www.akerbiomarine.com)  
[www.superbakrill.com](http://www.superbakrill.com)



Superba™ Krill oil is protected by US patents 9,034,388; 9,028,877; 9,078,905 and 9,072,752 with other patents pending.

Superba™ Krill is a trademark of Aker BioMarine ASA, Norway.  
© 2016 Aker BioMarine. All rights reserved.