



# **Report**

## **China Market Update**

### **Krill Products**

*(Euphausia superba, Dana)*

**Release June 2013**



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## Chinese Krill Project "'863 Project"

China's first Antarctic Ocean Living Resources' Development and Utilization Project was launched in Dalian, March 16<sup>th</sup> 2011, named "**Rapid Separation of Antarctic Krill and Key Technology of Deep Processing**".<sup>1</sup>

This project started October 2010 when the Chinese State Ministry of Science officially launched the "**863 Program**" to become a "national strategy". In December 2010 a project team was put together counting nine universities and research institutions. In March 2011 the project was formally approved.

Some attendees; (a) East China University of Technology, (b) China Academy of Fishery Sciences, (c) China Polar Research Institute and (d) Other national research institutes.

This project, aimed to start immediately, is the first organized by the so-called "**863 Project**". The "863 Project" belongs to China's *Antarctic Ocean Living Resources Development*. The latter comes from *China National High Technology Research and Development Program*. This project is the first one for the program *China Antarctic Ocean Living Resources Development and Utilization*.

It is a multiparty and long-lasting Chinese engagement in krill activities. For how long = "**Twelfth Five-Year**" segments, around 60 years, is the initial target.

Which products; Marine-based health products, pharmaceuticals and raw materials.

Among the planned research, one that leads is the "**Rapid Separation of Antarctic Krill and Key Technology of Deep Processing**". **Target** -> South Antarctic Krill exploitation and utilization. There is also the responsibility for organizing a number of research institutions and universities to promote the progress of the project. It is expected to become a breakthrough for the transformation of Chinese offshore fishing and a new growth area and development of the marine economy in the Liaoning Province.

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<sup>1</sup> Mainly oils, food-grade meats and dried meals.  
China Market Update (release 1-June 2013)



The "**Rapid Separation of Antarctic Krill and Key Technology of Deep Processing**" project aims for an efficient on-board separation of South Antarctic krill; fast processed towards the procurement of high-value end-products, test news technologies and equipment, systems integration and applications.

### Some Government Regulations

- A. Currently China holds national standards for testing astaxanthin content.
- B. Chinese government has cancelled one function ex-krill oil: Assisting blood pressure reduction out of 27 kinds of functions accepted by SFDA's. Reasons for cancellation:
  - a. High blood pressure is a key factor to cause acute cardiovascular and cerebrovascular disease, it is of high risk to set such a function of health food, consumers do not have a clear understanding of health food which has this function, if the use method is not proper, it is easy to cause danger.
  - b. The function positioning is not accurate, mainly target for diseases, there is a gap between health food functions set policy, and it is better to use clinical treatment.
- C. The Fishery Bureau of Ministry of Agriculture regulates krill fishing manage harvesting decisions confirming how embedded Chinese fishing and marketing activities are to the Chinese central Government. The Fishery Bureau of Ministry of Agriculture also regulates financial budgets, harvesting strategy and operational matters of Chinese krill fishing companies, among other decisions.
- D. Chinese Government direct involvement also comprises several scientific research institutions such as;
  - a. Yellow Sea Fisheries Research Institute Chinese Academy of Fishery Science<sup>2</sup>
  - b. East China Sea Fishery Research Institute Chinese Academy of Fishery Science<sup>3</sup>
  - c. Shanghai Ocean University<sup>4</sup>

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<sup>2</sup> [http://www.ysfri.ac.cn/english/aboutus\\_History.asp?f=3&m=1](http://www.ysfri.ac.cn/english/aboutus_History.asp?f=3&m=1)

<sup>3</sup> <http://www.eastfishery.ac.cn/englishversion/englishindex.htm>

<sup>4</sup> <http://www.shou.edu.cn/>



## Chinese Companies

### Shandong Keruier (SK)<sup>5</sup> <sup>6</sup>

SK's technical department is cooperating with several university professors for the production of good-quality krill oil.

Nonetheless, SK has also made importation of Aker's Superba™ krill oil. This no longer holds as both companies have pursued rather different roads.

SK claimed that it would build its own "*Antarctic Krill Industrial Park*" although this has not been achieved yet.

SK has also sold its own-manufactured krill oil as fish food for fish bait manufacturers.

SK has worked with a Beijing-based company to handle krill oil registration process. This company<sup>7</sup> is specialized in research, health food registration process and similar technical services. Among others, the following services are provided:

- (a) Import Registration
- (b) SFDA Certificate transfer and Registration process
- (c) Product Development

### **Why then SK would import Aker's krill oil:**

- 1) There is an active krill oil market in China beyond SK's processing capabilities.
- 2) SK's own krill process has (still) pitfalls on the matrix equipment/process preventing it to manufacture high-quality krill oil.
- 3) SK's cost is still high.

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<sup>5</sup> <http://www.keruier.cn/>

<sup>6</sup> One of SK current krill oil patents "*Method of Extracting High-lipid Content from Antarctic Krill*".

<sup>7</sup> [www.bjsjzk.com](http://www.bjsjzk.com)



- 4) If SK manufactures krill oil using its own process, it is highly probable to get a mid/low-quality oil (tougher to get Chinese Health Food Certificate from SFDA).
- 5) With other sourced krill oils (e.g. Aker's) it will be easier to get SFDA import approval. Granted this, it is also possible that SK decides at some time to **sell** the Health Food Certificate it gets from SFDA to other Chinese companies as the price for it is very expensive.
- 6) Alternatively, when SK gets the Health Food Certificate, it can start manufacturing its own krill oil. If the quality of the resulting krill oil is different from the quality of krill oil submitted to SFDA, SK can explain that the latter came from a different manufacturing process, expanding the manufacturing registration, creating more hurdles to third parties.
- 7) When SK secures the Health Food Certificate (faster through Aker's oil), it also plans to fill soft capsules, selling bulk and capsules.
- 8) If the Chinese government does not do a good import regulation process, SK can launch Aker's imported krill oil on the Chinese market.
- 9) Importing oil is a way for SK to collect money from local Government and secure support from Chinese government.
- 10) Quality....quality....quality !!

SK holds its own krill oil extraction patents.

SK's krill oil extraction patent is in jeopardy as it cannot be done in Jinan (city Shandong Keruier is located). Their extraction process does not comply with Jinan's ***Environment Impact Assessment***. If they still plan to produce in Jinan, SK will have to change their extraction technology.

SK has worked at different levels both with Dalian Fishing Company and Shanghai Fishing Company. The former remains in the krill fishing while the latter lost its fishing trawler to a fire in May 2013 while fishing in South Antarctic waters. Plans are to refit other trawler and go back to krill fishing.

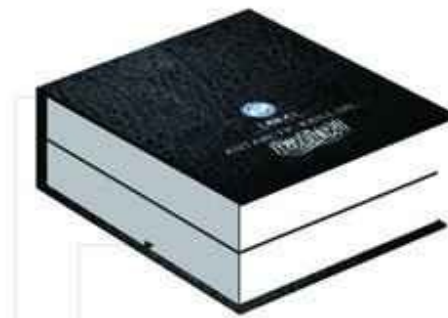








- ▶ 透光银粉裱纸
- ▶ 墨绿色特种纸
- 材料及制作工艺：烫膜盒
- 标志印刷色采：白色印刷



- ▶ PU 丝印烫单
- ▶ 透光银粉裱纸
- 材料及制作工艺：烫膜盒
- 标志印刷色采：白色印刷



### Anqing City Jinke Biological Engineering (renamed as Beijing Jin-ye Bioengineering Co.)<sup>8</sup>

Beijing Jin-ye Bioengineering Co's CEO is former Director of Production Department of Shandong Keruier and also acts as CEO of previous Anqing City Jinke Biological Engineering.

Acted as the subcontractor of Shandong Keruier (SK). Currently they do not remain cooperating anymore, that is, Beijing Jin-ye does not provide sub-contracted service for SK.

Beijing Jin-ye Bioengineering products and target markets:

- a. ***Dried Antarctic krill meal*** as fish bait and general aqua-feed applications.
- b. ***Antarctic Krill oil*** as human-grade and feed grade, supply clients with bulk krill oil and soft capsules (bulk soft capsules and soft capsules in Blister or Bottle)

### Qingdao Fuqa Aquaculture<sup>9</sup>

It has started to cooperate with a Norwegian Aquaculture company with a branch company in China.

### Zhoushan Terui Trading Company (quit krill business)

Still without a formal company site and just publish information on a B2B site.<sup>10</sup> Although it published products from Norwegian KRILLSEA Company, Norwegian Krillsea Products is no longer working in krill after it went bankrupt in 2011/2012 and its sole fishing trawler was purchased (and renamed) by Aker Biomarine.

Products formerly traded by this company:

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<sup>8</sup> <http://www.chinanjlx.com/en/index.asp>

<sup>9</sup> [www.fukaqd.com/](http://www.fukaqd.com/)

<sup>10</sup> <http://zhoushanteruimaoyi.21food.cn/>





