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Given Name (first and middle [if any])		Family Name or Surname		e (Cit	Residence (City and either State or Foreign Country)			
Harald		Breivik			Porsgrunn, Norway			
Additional inventors are being named on the separately numbered sheets attached hereto								
TITLE OF THE INVENTION (280 characters max)								
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15.11.2006

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krill

Pronova Biocare AS P.O. Box 420 N-1327 Lysaker NORWAY

Inventor:

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Title: "Processes for production of omega-3 rich marine phospholipids from krill"



Field of the invention

The present invention relates to a process for preparing a substantially total lipid fraction from fresh krill, and a process for separating phospholipids from the other lipids.

Background of the invention

Marine phospholipids are useful in medical products, health food and human nutrition, as well as in fish feed and means for increasing the rate of survival of fish larval and fry of marine species like cod, halibut and turbot.

Phospholipids from marine organisms comprise omega-3 fatty acids. Omega-3 fatty acids bound to marine phospholipids are assumed to have particularly useful properties.

Products such as fish milt and roe are traditional raw materials for marine phospholipids. However, these raw materials are available in limited volumes and the price of said raw materials is high.

Krill are small, shrimp-like animals, containing relatively high concentrations of phospholipids. In the group *Euphasiids*, there is more than 80 species, of which the Antarctic krill is one of these. The current greatest potential for commercial utilisation is the Antarctic *Euphausia superba*. E. superba has a length of 2-6 cm. Another krill species is E. crystallorphias.

Fresh krill contains up to around 10 % of lipids, of that approximately 50 of % phospholipids. Phospholipids from krill comprise a very high level of omega-3 fatty acids, whereof the content of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) is above 40 %. The approximate composition of lipids from the two main species of Antarctic krill is given in Table 1.

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