



Process description – RIMFROST Krill Oil

Step 1: **Rapid processing of krill raw material on-board the vessel**

RIMFROST AS guarantees 100% traceability and is also certified by Friend of the Sea to ensure it reaches the highest possible standards in sustainability. The Norwegian authorities monitor all the operations on the vessel closely and together with CCAMLR (Convention on the Conservation of Antarctic Marine Living Resources) set standards for detailed reporting.

1. **Raw material**

The raw material of RIMFROST krill oil, the Antarctic krill (*Euphausia Superba*), is collected and processed on-board. The vessel collects the krill and directly it goes to rapid on-board processing, therefore no krill is stored unprocessed.

In average, 26 kgs Antarctic krill is needed to produce 1 kg of krill oil

2. **Enzymatic hydrolysis**

Immediately after catch, the krill is ground for the controlled enzymatic hydrolysis. Only some food-grade enzymes are added which together with krill's naturally high enzymatic activity, break down and partly solubilize proteins into peptides.

3. **Decanter**

After hydrolysis the shells of the krill are efficiently decanted with minimal loss of valuable lipids.

4. **Pasteurization and inactivation of enzymes**

The hydrolyzed krill is pasteurized to ensure the hygienic quality.

5. **Sedicanter**

The excess water is removed from the sediment in a mechanical separation

6. **Low temperature vacuum drying**

The wet krill sediment containing lipids, peptides and antioxidants is then gently dried by low temperature vacuum drying to get the final Antarctic krill meal.

The process facility and its on-board quality and risk management system is registered with, certified and audited by the Norwegian Food Safety Authority. The system applies the Hazard Analysis and Critical Control Point (HACCP) principles.

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Step 2: Gentle extraction with ethanol extraction

The extraction of the oil from the Antarctic krill meal is done in Belgium. The solvent used is pure ethanol.

7. Liquid extraction

Ethanol extraction is used to extract RIMFROST Antarctic krill oil from the on-board produced krill meal.

The process is done according to the Good Manufacturing Practices (GMP)

Finally, 26 kgs Antarctic krill gives 1 kg of pure Antarctic krill oil containing no additives

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