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(54) **BIOEFFECTIVE KRILL OIL COMPOSITIONS**

(71) Applicant: **AKER BIOMARINE ANTARCTIC AS**, Stamsund (NO)

(72) Inventors: **Inge Bruheim**, Volde (NO); **Snorre Tilseth**, Bergen (NO); **Daniele Mancinelli**, Orsta (NO)

(73) Assignee: **AKER BIOMARINE ANTARCTIC AS**, Stamsund (NO)

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See application file for complete search history.

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Primary Examiner — Debbie K Ware

(74) *Attorney, Agent, or Firm* — Casimir Jones S.C.

(57) **ABSTRACT**

This invention discloses new krill oil compositions characterized by having high amounts of phospholipids, astaxanthin esters and/or omega-3 contents. The krill oils are obtained from krill meal using supercritical fluid extraction in a two stage process. Stage 1 removes the neutral lipid by extracting with neat supercritical CO₂ or CO₂ plus approximately 5% of a co-solvent. Stage 2 extracts the actual krill oils by using supercritical CO₂ in combination with approximately 20% ethanol. The krill oil materials obtained are compared with commercially available krill oil and found to be more bioeffective in a number of areas such as anti-inflammation, anti-oxidant effects, improving insulin resistances and improving blood lipid profile.

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