

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RIMFROST AS
Petitioner,

v.

AKER BIOMARINE ANTARCTIC AS
Patent Owner.

Case IPR2018-01730

U.S Patent No. 9,072,752

**Patent Owner's Response to Petition for *Inter Partes* Review of
U.S. Patent No. 9,072,752**

Mail Stop Patent Board
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	INTRODUCTION.....	3
II.	SUMMARY OF ARGUMENT	4
III.	BACKGROUND.....	7
	A. THE '752 PATENT CLAIMS	7
	B. TECHNOLOGY OVERVIEW.....	8
IV.	LEGAL STANDARDS.....	10
V.	CLAIM CONSTRUCTION.....	11
VI.	LEVEL OF SKILL IN THE ART.....	14
VII.	CLAIMS 1 - 20 ARE NOT ANTICIPATED BY OR OBVIOUS OVER THE COMBINED REFERENCES	15
	A. Ground 1: Claims 1, 5-6 and 11 are not anticipated by Catchpole.....	15
	1. Claims 1 and 11 are not anticipated because Catchpole does not teach krill oil with greater than about 5% ether phospholipids	15
	2. Claims 5 and 6 are not anticipated because Catchpole does not teach krill oil with greater than about 6% or 7% ether phospholipids	17
	B. Ground 2: Claims 4, 7, and 12-13 are not obvious over the combination of Catchpole and Sampalis II	18
	C. Ground 3: Claims 8-10 are not obvious over the combination of Catchpole, Grynbaum and Randolph.....	22
	D. Ground 4: Claims 1-3, 5-6 and 11 are not obvious over the combination of Catchpole and Enzymotec.....	24
	E. Ground 5: Claims 14-16 and 20 are not obvious over the combination of Catchpole, Enzymotec and Sampalis II	32
	F. Ground 6: Claims 17-19 are not obvious over the combination of Catchpole, Enzymotec, Sampalis II, Grynbaum and Randolph	35
VIII.	CERTIFICATE OF COMPLIANCE	38
IX.	CONCLUSION	38
	CERTIFICATE OF SERVICE	39

I. INTRODUCTION

Pursuant to 37 C.F.R. § 42.120, Patent Owner Aker BioMarine Antarctic AS (“Patent Owner” or “Aker”) Responds to the Petition for *Inter Partes* Review (“Petition”) of U.S. Patent No. 9,072,752 (“the ‘752 Patent”) filed by Rimfrost AS (“Petitioner” or “Rimfrost”). On March 12, 2019 the Patent Trial and Appeal Board instituted this *Inter Partes* review of claims 1 – 20 of the ‘752 Patent based on Rimfrost’s Petition. In Response, Patent Owner relies on the Declaration of Dr. Nils Hoem (Ex. 2001) and the additional exhibits in the Exhibit Listing that is filed concurrently herewith. The following grounds of alleged unpatentability are at issue:

Ground	References	Basis	Claims Challenged
1	Catchpole (Ex. 1009)	§ 102(e)	1, 5, 6 and 11
2	Catchpole (Ex. 1009) Sampalis (Ex. 1013)	§ 103(a)	4, 7, 12, and 13
3	Catchpole (Ex. 1009) Grynbaum (Ex. 1039) Randolf (Ex. 1011)	§ 103(a)	8-10
4	Catchpole (Ex. 1009) Enzymotec (Ex. 1048)	§ 103(a)	1-3, 5, 6, and 11
5	Catchpole (Ex. 1009) Enzymotec (Ex. 1048)	§ 103(a)	14-16 and 20

	Sampalis (Ex. 1013)		
6	Catchpole (Ex. 1009) Enzymotec (Ex. 1048) Sampalis (Ex. 1013) Grynbaum (Ex. 1039) Randolf (Ex. 1011)	§ 103(a)	17-19

II. SUMMARY OF ARGUMENT

Petitioner fails to establish by a preponderance of the evidence that it's cited prior art renders any patented claim anticipated or obvious.

First, none of the references disclose the claim limitations of greater than about 5% ether phospholipids in the independent claims and greater than about 6% or 7% ether phospholipids in dependent claims 5, 6, 15 and 16. Catchpole is the only cited reference that discloses the ether phospholipid content of a krill oil. That amount is allegedly 4.8% w/w of the Extract 2 krill oil in Example 18 of Catchpole. Ex. 1009 at 0024. Patent Owner defines the broadest reasonable interpretation of the term "about greater than 5%" to mean "greater than 4.95%." Catchpole does not teach a krill oil with greater than 4.95% ether phospholipids w/w under that definition and does not teach krill oils with greater than about 6% or 7% ether phospholipids w/w under either Patent Owner's or Petitioner's definitions of those terms. Furthermore, the statements in Catchpole that

compositions of the invention may contain greater than about 5% or 10% acylalkylphospholipids do not apply specifically to krill oil as Catchpole provides a virtually unlimited list of source materials. Hoem Decl. (Ex. 2001) ¶47.

Second, Catchpole specifically discloses that its extraction method (a specific two-step SFE method) leads to an extract “highly enriched” for the ether phospholipid AAPC. There is no evidence that extraction methods used, for example, by Enzymotec (Ex. 1048) similarly enrich for AAPC or any other ether phospholipid. In fact, Enzymotec does not disclose what extraction methods were used (for example what solvents and under what conditions) or how their extracts were analyzed. Without this information, a POSITA would not combine references such as Catchpole and Enzymotec or use the ether phospholipid content in disclosed in Catchpole to estimate the ether phospholipid content of different krill extracts such as the Enzymotec Grade B krill lecithin. Hoem Decl. (Ex. 2001) ¶48.

Third, a POSITA would understand from Catchpole’s disclosure that the ether phospholipid content of its krill extracts could not be increased, for example, by removing neutral lipids. Catchpole specifically teaches that its methods use a first CO₂-only extraction step to remove “much or all” of neutral lipids. Ex. 1009 at 0011, l. 23-25; 0013, l. 20-22. As shown in detail below, the data in Example 18 is consistent with this teaching and indicates that all neutral lipids were removed in

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.