Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 10 April 2025

Case Number: T 0856/23 - 3.3.09

Application Number: 16715125.7

Publication Number: 3256002

IPC: A23J3/14, A23J3/18, A23L33/185

Language of the proceedings: EN

Title of invention:
METHOD FOR PREPARING AN AQUEOUS DISPERSION OF A POORLY DISPERSIBLE PLANT PROTEIN

Patent Proprietor:
FrieslandCampina Nederland B.V.

Opponents:
Fresenius Kabi Deutschland GmbH
Société des Produits Nestlé S.A.

Headword:
Poorly dispersible plant protein/FRIESLAND CAMPINA

Relevant legal provisions:
EPC Art. 56, 100(a)

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0856/23 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 10 April 2025

Appellant: (Opponent 2)	Société des Produits Nestlé S.A. Avenue Nestlé 55 1800 Vevey (CH)
Representative:	Vossius & Partner Patentanwälte Rechtsanwälte mbB Siebertstraße 3 81675 München (DE)
Respondent: (Patent Proprietor)	FrieslandCampina Nederland B.V. Stationsplein 4 3818 LE Amersfoort (NL)
Representative:	FrieslandCampina IP Department Bronland 20 6708 WH Wageningen (NL)
Party as of right: (Opponent 1)	Fresenius Kabi Deutschland GmbH Else-Krömer-Strasse 1 61352 Bad Homburg (DE)
Representative:	Fresenius Kabi Deutschland GmbH Pharmaceuticals and Devices Division Borkenberg 14 61440 Oberursel (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 28 February 2023 rejecting the opposition filed against European patent No. 3256002 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	A. Haderlein
Members:	M. Ansorge
	R. Romandini

Summary of Facts and Submissions

I. Opponent 2 (appellant) lodged an appeal against the opposition division's decision rejecting the opposition.

II. With their notices of opposition, opponents 1 and 2 had requested that the patent be revoked e.g. on the ground for opposition of lack of inventive step under Article 100(a) EPC.

III. The opposition division decided *inter alia* that the claimed subject-matter involved an inventive step in view of D2 or D6 as closest prior art.

IV. Claim 1 of the main request (claims as granted) reads as follows:

"Method for preparing an aqueous dispersion comprising colloidal protein particles dispersed in an aqueous fluid, which colloidal protein particles comprise caseinate and one or more plant proteins of a seed of a plant from the family of *Poaceae*, the method comprising

a) providing an intermediate dispersion of caseinate and particles comprising said one or more plant proteins in an aqueous fluid; and

b) subjecting the intermediate dispersion to a disruptive pressurization step comprising treatment in a homogenizer at a pressure of at least 40 MPa, wherein the particles comprising the one or more plant proteins are disrupted and the aqueous dispersion comprising the colloidal protein particles is formed."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the feature "thereby increasing the dispersibility of the one or more plant proteins in water at 20°C to 20% or more" is added at the end of claim 1.

Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that the feature "thereby forming hybrid particles having a dispersibility in water at 20°C of 20% or more" is added at the end of claim 1.

Claim 1 of auxiliary requests 3, 4 and 7 differs from claim 1 of the main request in that the feature "wherein said one or more plant proteins are of a cereal or grass selected from the group of oat, wheat, corn, barley, rye and sorghum" is added at the end of claim 1.

Claim 1 of auxiliary request 5 differs from claim 1 of the main request in that the feature "thereby increasing the dispersibility of the one or more plant proteins in water at 20°C to 20% or more, wherein said one or more plant proteins are of a cereal or grass selected from the group of oat, wheat, corn, barley, rye and sorghum" is added at the end of claim 1.

Claim 1 of auxiliary request 6 differs from claim 1 of the main request in that the feature "thereby forming hybrid particles having a dispersibility water [sic] at 20°C of 20% or more, wherein said one or more plant proteins are of a cereal or grass selected from the group of oat, wheat, corn, barley, rye and sorghum" is added at the end of claim 1.

V. The following documents were cited in the case at hand:

D2: WO 2014/044990 A1
D6: H. Chen et al., "Processes improving the dispersibility of spray-dried zein nanoparticles using sodium caseinate", Food Hydrocolloids 35 (2014), pages 358-66

VI. The parties' relevant arguments are reflected in the reasons for the decision below.

VII. Requests

The appellant requested that the decision be set aside and the patent be revoked.

The respondent requested that the appeal be dismissed (main request) or, as an auxiliary measure, that the patent be maintained on the basis of one of auxiliary requests 1 to 7, filed with the reply to the statement of grounds of appeal (auxiliary requests 1 to 7 correspond to the auxiliary requests filed in the first-instance opposition proceedings).

Reasons for the Decision

MAIN REQUEST

1. Inventive step

1.1 The opposition division found that document D6 was the closest prior art, but concluded that the claimed subject-matter involved an inventive step in view of D2 or D6 as closest prior art. The appellant argued that

the claimed method did not involve an inventive step in view of D2 or D6 as closest prior art, whereas the respondent maintained that the subject-matter claimed in the patent as granted did involve an inventive step in response to both objections.

1.2 As outlined below, the board comes to the conclusion that the claimed process does not involve an inventive step in view of D2 as closest prior art.

1.2.1 First, apart from D6, D2 also qualifies as a suitable starting point for assessing inventive step, since both documents relate to the same technical field as the patent and are directed to a similar purpose. This was uncontested among the parties.

1.2.2 D2 discloses a method for obtaining an assembly of at least one vegetable protein and at least one dairy protein, comprising the steps of providing a composition comprising at least one vegetable protein, providing a composition comprising at least one dairy protein and mixing the composition comprising at least one vegetable protein and the composition comprising at least one dairy protein, and further one or more, same or different, steps of protein conformation modifying treatment (see claim 1).

1.2.3 It was common ground among the parties that D2 discloses all the features of claim 1 in combination except for the colloidal protein particles comprising caseinate and the plant protein of a seed of a plant from the family of *Poaceae* (i.e. grasses).

1.2.4 It is derivable from points 17.24 to 17.27 of the decision under appeal that the opposition division did not acknowledge an improvement over D2. The respondent

did not argue that there was an improvement over D2 as closest prior art either.

1.2.5 The respondent argued that example 5 of the patent showed that not every dairy protein was able to provide a satisfactory dispersion of cereal protein particles; caseinates were able to do this but skimmed milk powder and micellar casein were not.

1.2.6 However, example 5 of the patent is not suited to demonstrate that there is an improvement over D2 as closest prior art which results from the difference over D2. In particular, example 5 of the patent even supports the claim covering a combination of calcium caseinate and rice kernel protein which is not dispersible. Under these circumstances, an improvement over D2 cannot be acknowledged.

1.2.7 In view of the above, the objective technical problem to be solved is to provide an alternative method for producing an aqueous dispersion.

1.2.8 With respect to the question of obviousness, the board comes to the conclusion that a skilled person would arrive at the claimed subject-matter in an obvious manner, as outlined below.

The respondent argued that D2 disclosed cereal proteins as possible vegetable proteins, but focused on pea proteins and also disclosed various dairy proteins with a focus on micellar casein. In the board's view, the fact that D2 focuses on other proteins does not mean that a skilled person would not also contemplate the combination of a caseinate (see page 17, line 24 to page 18, line 8 of D2) and a cereal protein (such as rye, barley or oat; see page 7, lines 24 to 30 of D2),

both ingredients being explicitly disclosed in D2. Contemplating these proteins in combination is encompassed by and taught in D2. In a similar manner, a skilled person would also contemplate applying a homogenising step at 40 MPa or above (see page 33, line 21 to page 34, line 11 of D2), which is considered a disruptive pressurisation step. Whether D2 focuses on pea protein does not represent a bar to the skilled person to look for other combinations in view of the problem to be solved being the provision of an alternative process.

According to the opposition division, a skilled person could have chosen a cereal protein and caseinate, but would not have chosen this combination of features in view of the teaching of D2. As outlined above, the board does not agree with this conclusion. All the features of claim 1 are disclosed in D2 and there is no bar which might prevent a skilled person from contemplating them in combination. The board also shares the appellant's view that a skilled person will learn from D6 that the dispersibility of zein can be enhanced through the combination with sodium caseinate.

The claimed method is an obvious alternative in view of the closest prior art.

In view of the above, the claimed method does not involve an inventive step in view of D2 as closest prior art.

AUXILIARY REQUESTS

2. With respect to the question of inventive step of auxiliary requests 1 to 7, the respondent referred to the arguments for the main request. Under these

circumstances, the board does not see why the subject-matter claimed in auxiliary requests 1 to 7 might be suited to overcoming the inventive-step objection against the main request. Consequently, the method claimed in the auxiliary requests is considered to lack an inventive step for substantially the same reasons as the main request. In particular, the functional definition in auxiliary requests 1, 2, 5 and 6 is a direct consequence of the obvious combination of proteins discussed for the main request, and the remaining amendments relate to features already disclosed or taught in D2.

Accordingly, none of the auxiliary requests is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

K. Götz-Wein A. Haderlein

Decision electronically authenticated