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Datasheet for the decision of 28 September 2020

Case Number: T 1984/16 - 3.3.09

Application Number: 11702852.2

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IPC: A23C11/04, A23C17/00

Language of the proceedings: EN

Title of invention:
SUBSTITUTE MILK PRODUCT

Patent Proprietor:
Arla Foods Amba

Opponent:
FrieslandCampina Nederland B.V.

Headword:
Substitute milk product/ARLA FOODS

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (yes)

Decisions cited:

Catchword:

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Beschwerdekammern

Boards of Appeal

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Case Number: T 1984/16 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 28 September 2020

Appellant: (Opponent)	FrieslandCampina Nederland B.V. Stationsplein 4 3818 LE Amersfoort (NL)
Representative:	FrieslandCampina Nederland B.V. IP Department Bronland 20 6708 WH Wageningen (NL)
Respondent: (Patent Proprietor)	Arla Foods Amba Sønderhøj 14 8260 Viby J (DK)
Representative:	Guardian IP Consulting I/S Diplomvej, Building 381 2800 Kgs. Lyngby (DK)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 29 June 2016 concerning maintenance of the European Patent No. 2533650 in amended form.**

Composition of the Board:

Chairman	D. Rogers
Members:	A. Haderlein F. Rinaldi

Summary of Facts and Submissions

I. The appeal was filed by the opponent (appellant) against the interlocutory decision of the opposition division finding that, on the basis of what was then auxiliary request 1, the patent in suit met the requirements of the EPC.

II. Notice of opposition was filed on the grounds of Article 100(a) (novelty and inventive step) and Article 100(b) EPC.

III. According to the impugned decision, in particular the requirement of sufficiency of disclosure was met and the subject-matter of claim 1 of what was then auxiliary request 1 involved an inventive step when starting from

D1: US 4 446 164

in combination with

D16: D.F. Newstead Sweet-Cream Buttermilk Powders: Key Functional Ingredients For Recombined Milk Products, 3rd International Symposium on Recombined Milk & Milk Products, 1999, pages 54 to 60.

The following document was also referred to in the proceedings before the opposition division:

D18: I. Sodini et al., Compositional and Functional Properties of Buttermilk: A Comparison Between Sweet, Sour, and Whey Buttermilk, J. Dairy Sci.

89, 2006, pages 525 to 536.

IV. With its reply to the grounds of appeal, dated 13 March 2017, the proprietor (respondent) filed six auxiliary requests, of which only auxiliary request 4 is relevant for the present decision. Claim 1 of this request reads as follows:

"1. A filled milk product comprising:
- sweet buttermilk solids in an amount of at least 5% (w/w) relative to the dry weight of the filled milk product,
- a vegetable lipid source, and
- a first carbohydrate source
wherein the filled milk product, when standardized to a solids content corresponding to 10 g powdered filled milk product in 90 g water, has a pH in the range of pH 6-8 at 25 degrees C,
and where the filled milk product comprises a total amount of lipids in the range of 5-50% (w/w) relative to the dry weight of the filled milk product,
and where the filled milk product is a powder."

Claims 2 to 13 are dependent product claims. Claim 14 is a method claim referring to the product according to any of claims 1 to 13.

V. At the oral proceedings before the board, the respondent withdrew its main request and auxiliary requests 1 to 3 and 5 and 6, with the result that auxiliary request 4 became its sole request.

VI. The appellant's arguments, where relevant for the present decision, may be summarised as follows:

The requirement of sufficiency of disclosure was not

met. In particular, the skilled person was unable to measure the amount of sweet buttermilk solids in the claimed composition, because the claimed composition contained carbohydrates from at least two sources, i.e. from the sweet buttermilk itself and from the "first carbohydrate source".

As to inventive step, the closest prior art was D1. The subject-matter of claim 1 of the main request differed therefrom in that it comprised sweet buttermilk solids in an amount of at least 5% (w/w) relative to the dry weight of the filled milk product. The data given in the patent, or patent application, did not provide evidence that the difference resulted in improved taste after long storage time at elevated temperature. In particular, powder 2 of the patent was not representative of the powder disclosed in D1, because powder 2 did not contain sweet whey solids. Considering that D1 already addressed the problem of improving taste, it was not credible that there was a further improvement in this respect. As to obviousness, D1 already taught to use sweet buttermilk solids. Moreover, D16 taught to use 10% or more of sweet buttermilk solids. It was therefore obvious to arrive at the claimed subject-matter, with the effect of improved storage stability only being a bonus effect which was moreover already taught in D16. Lastly, the distinguishing feature was also taught in D18.

VII. The respondent's arguments, where relevant for the present decision, may be summarised as follows:

The requirement of sufficiency of disclosure was met. For inventive step, D1 represented the closest prior art. The subject-matter of claim 1 differed from this in that it comprised sweet buttermilk solids in an

amount of at least 5%. The problem to be solved was to improve taste after long storage time at elevated temperature. The problem was solved, as evidenced by Table 3 of the patent (in the patent specification, Table 3 is incorrectly reproduced: for the correct version, see the application as filed or the Druckexemplar). The solution was not obvious in view of the cited prior art.

VIII. Requests

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

The respondent requested, as its sole request, that the decision under appeal be set aside and that the patent be maintained upon the basis of auxiliary request 4 filed with the reply to the grounds of appeal dated 13 March 2017.

Reasons for the Decision

1. Amendments

The appellant did not object to the amendments under Article 123(2) EPC.

Claim 1 of this request is based on claim 1 of the request which the opposition division found complied with the requirement of Article 123(2) EPC (see item 3.3. of the impugned decision), and contains the additional feature that the filled milk product is a powder. The latter is based on the application as filed, page 18, lines 14 to 16 as submitted by the respondent.

The dependent claims correspond to their granted counterparts and the corresponding claims in the application as filed.

The requirement of Article 123(2) EPC is thus met.

2. Sufficiency of disclosure

The board agrees with the respondent that the patent discloses the invention underlying the subject-matter of claim 1 of the sole request in a manner sufficiently clear and complete for it to be carried out by a skilled person taking into consideration the patent in suit and their common general knowledge. The patent uncontestedly discloses at least one way to prepare a filled milk product which contains sweet buttermilk solids in an amount of at least 5% (w/w) relative to the dry weight of the filled milk product. In the absence of any evidence to the contrary, it is credible that, on the basis of the patent in suit and their common general knowledge, the skilled person is able to perform the invention across the entire breadth of the claim.

With respect to the "sweet buttermilk" and "sweet buttermilk solids", they are defined and discussed in paragraphs [0018] and [0019] to [0035] of the patent specification. The "first carbohydrate source" is discussed in paragraphs [0046] to [0065], and the "vegetable lipid source" is discussed in paragraphs [0074] to [0085]. Furthermore, the experimental part of the patent discloses filled milk products according to the claimed invention:
Examples 3 and 4 disclose filled milk products in powder form,
Example 9 discloses a filled milk product in powder

form (powder 1) and
Example 11 discloses different filled milk products in powder form (powders 1 and 5).

Lastly, on the basis of their common general knowledge the skilled person is able to choose suitable starting materials and prepare filled milk products across the entire scope of claim 1.

The appellant argued that the skilled person was unable to measure the amount of sweet buttermilk solids in the claimed composition because of the interference of the carbohydrates originating from the "first carbohydrate source". However, this does not lead to an issue of insufficient disclosure. The patent gives the skilled person clear instructions for making the filled milk product of claim 1, i.e. to combine a specific amount of sweet buttermilk solids with a specific amount of a vegetable lipid source and "a first carbohydrate" and to keep its pH, when standardized to a solids content corresponding to 10 g powdered filled milk product in 90 g water, in the range of pH 6-8 at 25°C.

For these reasons, the requirements of Article 83 EPC are met.

3. Inventive step

3.1 There is agreement amongst the parties that D1 can be considered the closest prior art and that the subject-matter of claim 1 differs therefrom in that it comprises sweet buttermilk solids in an amount of at least 5% (w/w) relative to the dry weight of the filled milk product.

3.2 According to the respondent, the problem to be solved was to achieve improved taste after long storage at elevated temperatures (see also the patent, paragraph [0006]).

It was a matter of contention amongst the parties whether this problem was actually solved. Moreover, the appellant argued that the above problem actually constituted two (separate) problems, i.e. improved taste and improved long term stability at elevated temperatures.

3.2.1 While D1, as argued by the appellant, teaches that the products disclosed therein already show an improvement in terms of taste (see column 4, lines 2 to 5), this improvement is said to be due to specified milk solids, which are preferably powdered skim milk (see column 5, lines 48 and 49). In the patent in suit, such a skimmed milk powder is used as a comparative example in the patent (see Table 1, powder 2), and the patent asserts that it achieves an improvement on this, as set out in Example 11 (paragraphs [0265] to [0270]). According to Table 3 of the patent (for the correct version, see the application as filed or the Druckexemplar) there is less off-taste when using sweet buttermilk solids (powder 1) or replacing half of the skimmed milk by such sweet buttermilk solids (powder 5).

The question that thus needs to be answered is whether the results of Example 11 shown in Table 3 make it credible that the proposed solution results in improved taste after long storage at elevated temperatures.

3.2.2 According to the appellant, this was not credible because D1 already stated that the milk disclosed therein had excellent storage capabilities; and,

moreover, powder 2 of Example 11 was not representative of the powder disclosed in D1 because the latter contained sweet whey solids.

3.2.3 As to the storage capabilities mentioned in D1 (column 8, lines 33 to 35), these refer to a comparison between the powder according to D1 and its fluid milk counterpart. Thus, this passage does not relate to storage at elevated temperatures, and therefore fails to put into question the results of Example 11 of the patent.

3.2.4 As to the question of whether powder 2 of the patent is representative of the closest prior art D1, the appellant argued that in D1 (see in particular claim 1 thereof and the table in the upper part of column 11) sweet whey solids were used, whereas these were missing from comparative powder 2 in the patent.

While it is true that powder 2 of the patent does not contain sweet whey solids, it contains substantial amounts of skimmed milk, which is the preferred "milk solids not fat" in D1 and is said to lead to unexpected improvements in taste (D1, column 4, lines 2 to 5 and column 5, lines 48 to 50). Furthermore, it is over a powder which contains substantial amounts of skimmed milk (powder 2, see Table 1) that an improvement is shown in Example 11 of the patent. It is thus concluded that powder 2 in the patent in suit is reasonably representative of the powder known from the closest prior art, D1.

3.2.5 Moreover, the powders according to the invention, i.e. powders 1 and 5, uncontestedly differ from the one representing the closest prior art, i.e. powder 2, only in that they comprise the distinguishing feature, i.e.

the sweet buttermilk solids in an amount of at least 5% (w/w) relative to the dry weight of the filled milk product.

3.2.6 Example 11, and in particular Table 3 (correct version), show an improved taste after 12 and 18 months in terms of absence of off-taste.

3.2.7 It is thus concluded that the problem set at out at 3.2 above is solved and does not need to be reformulated.

3.3 It remains to be seen whether the proposed solution, i.e. the addition of sweet buttermilk solids in an amount of at least 5% (w/w) relative to the dry weight of the filled milk product, was obvious in view of the problem to be solved.

3.3.1 According to the appellant, it was obvious to use sweet buttermilk solids to solve the problem posed in view of D1. In fact, D1 taught to use buttermilk as one of three alternatives for the milk solids not fat (column 11, lines 18 to 20).

This argument is not convincing, because D1 does not address the problem of improved taste after long storage at elevated temperatures. The passage referring to "excellent storage capabilities and ... shelf life" in column 8, lines 32 to 34 does not refer to storage at elevated temperatures. Moreover, the reference to "buttermilk" in general does not clearly prompt the skilled person to use the specific sweet buttermilk solids required by claim 1 (compare in particular paragraph [0015] of the patent, which states that "'buttermilk' generally relates to a number of different product types").

3.3.2 According to the appellant, the proposed solution was also obvious in view of D16.

This document relates to the effects of sweet-cream buttermilk powder (abbreviated as BMP) on important properties of recombined milk systems (page 55, abstract). It discloses that the sweet-cream buttermilk powder has a relatively high percentage of milk fat, which is present in a form that enhances the flavour and richness of other products made from it (page 55, chapter 1, first paragraph). It also discloses that BMP gives recombined milk products a fuller-bodied, more "complete" flavour, a flavour nearer to that of fresh milk than when skim milk powder and anhydrous milk fat are used alone (page 56, chapter 3, first paragraph). It also discloses that sweet buttermilk powder, at an addition rate of 10% or more, improves the flavour of recombined milks (page 60, chapter 9, first line).

However, D16 does not disclose that sweet buttermilk powder improves the long term stability at elevated temperatures (tropical temperatures). Although D16 discloses that sweet buttermilk powder improves the heat stability of recombined evaporated milk, the term "heat stability" in the context of D16 relates to the ability of a concentrated (evaporated) milk to withstand in-can retort sterilisation without coagulating. D16 discloses that typical sterilisation conditions are in the range from 110°C for 30 minutes to 120°C for 10 minutes (page 57, chapter 4, lines 1 to 7). This is clearly different from long term stability at elevated temperatures, exemplified as being around 35°C (patent in suit, paragraph [0267]). Likewise, the flavour stability for 18 months referred to in chapter 8 of D16 does not refer to the aforementioned long term stability at elevated

temperatures. Finally, the reference to "drinking yoghurt of the laban type" mentioned in chapter 9 of D16 does not render the subject-matter of claim 1 obvious either. While laban is reportedly consumed in areas of the world with elevated temperatures, this does not provide a clear teaching with respect to long term stability at elevated temperatures.

Thus, the skilled person would not find in D16 any incentive to combine it with D1 in view of the problem to be solved.

3.3.3 The appellant also argued that D18 taught the use of sweet buttermilk in the product according to D1, referring to the abstract thereof.

According to D18, "buttermilk is sweet buttermilk, a by-product from churning sweet cream into butter". Even if it were accepted, based on D18, that the "buttermilk" mentioned in D1 was implicitly "sweet buttermilk", an assertion contested by the respondent, D1, as mentioned above, does not teach the use of sweet buttermilk solids in order to solve the problem set out at 3.2 above.

3.3.4 Finally, the appellant referred to several decisions of the Boards of Appeal and submitted that the problem to be solved was twofold, i.e. to improve taste and to improve long term stability at elevated temperatures. It was obvious to solve the first problem, the second problem being only a bonus effect.

As stated above, the problem to be solved is a single problem, i.e. to achieve improved taste after long storage at elevated temperatures, and not two separate problems, i.e. improved taste and improved storage

stability. Thus, for this reason alone, the appellant's argument must fail.

3.4 It is thus concluded that the skilled person would not have arrived at the claimed product in an obvious way when setting out to solve the problem posed. The requirement of Article 56 EPC is thus met.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent with the following claims and a description to be adapted:
   Claims:
   Nos 1 - 14 of auxiliary request 4 filed under cover of the reply to the appeal dated 13 March 2017.

The Registrar: The Chairman:

A. Nielsen-Hannerup D. Rogers

Decision electronically authenticated