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Datasheet for the decision of 5 June 2024

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Language of the proceedings:	EN

Title of invention:
METHOD FOR MAKING WHEY PROTEIN COMPOSITION WITH A REDUCED ASTRINGENCY

Patent Proprietor:
N.V. Nutricia

Opponents:
Société des Produits Nestlé S.A.
Arla Foods Amba

Headword:
Whey protein composition with a reduced astringency/NUTRICIA

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

Keyword:
Inventive step - obvious alternative - main request and auxiliary requests

Decisions cited:
T 1827/08

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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 1437/22 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 5 June 2024

Appellant: (Patent Proprietor)	N.V. Nutricia Eerste Stationsstraat 186 2712 HM Zoetermeer (NL)
Representative:	V.O. P.O. Box 87930 2508 DH Den Haag (NL)
Appellant: (Opponent 1)	Société des Produits Nestlé S.A. Entre-deux-Villes 1800 Vevey (CH)
Representative:	Rupp, Christian Mitscherlich PartmbB Patent- und Rechtsanwälte Karlstraße 7 80333 München (DE)
Appellant: (Opponent 2)	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 6 December 2021 concerning maintenance of the European Patent No. 2651249 in amended form.**

Composition of the Board:

Chairman	A. Haderlein
Members:	C. Meiners
	R. Romandini

Summary of Facts and Submissions

I. This decision concerns the appeals filed by the patent proprietor, opponent 1 and opponent 2 (all appellants) against the opposition division's interlocutory decision finding that, on the basis of auxiliary request 5 filed during oral proceedings before the opposition division, the patent met the requirements of the EPC.

II. In its decision, the opposition division decided, among other things, that the subject-matter of claim 14 as granted was insufficiently disclosed (Article 100(b) EPC). The subject-matter of claim 1 as granted, forming part of auxiliary request 1, was held to be novel but to lack an inventive step. Since essential features were missing from claim 1, the objective technical problem to be solved was merely the provision of an alternative method (for the preparation of a sterilised enteral composition). This reasoning applied equally to auxiliary requests 2 and 3 pending at that time.

Furthermore, the subject-matter of claim 1 of auxiliary request 4 then on file was found to extend the scope of protection beyond that of the granted claims. Claim 12 was considered to infringe the requirement of Rule 80 EPC. However, auxiliary request 5 (which corresponds to current auxiliary request 3) was held to meet the requirements of the EPC.

III. In their notices of opposition, opponents 1 and 2 had requested the revocation of the patent on the basis of, *inter alia*, Article 100(a) EPC for lack of inventive step.

IV. Relevant documents/evidence filed by the parties

The following documents, filed in the opposition proceedings, are relevant to this decision:

D2 WO 2009/113845 A1

D6 WO 2010/043415 A2

D8 Walstra et al., "Dairy Technology, Principles of Milk Properties and Processes", 1999

D14 Handbook of hydrocolloids, 2nd edn., Woodhead Publishing Limited, 2009, ISBN 978-1-84569-414-2, 290-2

D14a Handbook of hydrocolloids, 2nd edn., Woodhead Publishing Limited, 2009, ISBN 978-1-84569-414-2, Chapter: "Pectins", 274-97

D16 Technical report, filed by opponent 2 by letter dated 4 May 2020

D20 COMMISSION DIRECTIVE 1999/21/EC of 25 March 1999 on dietary foods for special medical purposes

In the course of the appeal proceedings, the patent proprietor filed the following document:

D23 Wikipedia article on E-numbers, as available before the priority date, via "The Wayback Machine", https://web.archive.org/web/20100211125812/https://en.wikipedia.org/wiki/E_number

V. *Wording of the relevant claims*

Claim 1 of the main request (claim 1 as granted) reads:

"A method for the preparation of a sterilized liquid or semi-solid acid enteral composition comprising per 100 ml 9 to 20 g of non-hydrolysed globular protein, which globular protein is selected from the group consisting of whey protein, pea protein, soy protein, and any mixture thereof, the composition further comprising fat and at least 100 mg of divalent metal cations and having a pH ranging between 3 and 5, comprising a step wherein at least the nonhydrolysed globular proteins are subjected to a homogenization step, followed by direct steam injection (DSI) at a holding temperature of 100 to 140 °C during a holding time of about 0.5 to 10 seconds."

Claim 1 of auxiliary request 1 is identical to claim 1 as granted.

Claim 1 of auxiliary request 2 differs from claim 1 as granted in that the feature "at least 100 mg of" characterising the level of divalent metal cations (DMCs) is substituted by the expression "in an amount ranging between 100 and 600 mg per 100 ml". In the following, this change is referred to as **amendment A**.

Claim 1 of auxiliary request 3 reads:

"A method for the preparation of a sterilized liquid or semi-solid acid enteral composition comprising per 100 ml 9 to 20 g of non-hydrolysed globular protein, which globular protein is selected from the group consisting of whey protein, pea protein, soy protein, and any mixture thereof, the composition further comprising fat and at least 100 mg of divalent metal cations and having a pH ranging between 3 and 5, comprising the consecutive steps of

a) preparing an aqueous solution comprising amounts of the divalent metal cations, the non-hydrolysed globular proteins and the fat, such that said sterilized liquid acid enteral composition comprises per 100 ml of said composition 9 to 20 g of the non-hydrolysed globular proteins, fat, and at least 100 mg of divalent metal cations, and having a pH ranging between 3 and 5;
b) homogenizing the resulting solution essentially obtained by step a); and
c) subjecting the resulting solution essentially obtained by step b) to a direct steam injection process at a holding temperature of 100 to 140 °C during a holding time of about 0.5 to 10 seconds."

Claim 1 of auxiliary request 4 reads (amendments compared to claim 1 of auxiliary request 1 underlined):

"A method for the preparation of a sterilized liquid or semi-solid acid enteral composition comprising per 100 ml 9 to 20 g of non-hydrolysed whey protein, with the proviso that the amount of non-hydrolysed globular protein is in the range of 9 to 20 g per 100 ml, the composition further comprising fat and divalent metal cations in an amount ranging between 100 and 600 mg per 100 ml and having a pH ranging between 3 and 5, comprising a step wherein at least the non-hydrolysed globular proteins, said globular proteins comprising non-hydrolysed whey protein, are subjected to a homogenization step, followed by direct steam injection (DSI) at a holding temperature of 100 to 140 °C during a holding time of about 0.5 to 10 seconds."

The aforementioned first new limitation added in this claim to whey protein, "whey protein, with the proviso that the amount of non-hydrolysed globular protein is

in the range of 9 to 20 g per 100 ml", is in the following designated **amendment B**.

Claim 1 of auxiliary request 5 further differs from claim 1 of the auxiliary request 3 by the deletion of the embodiments relating to the preparation of a semi-solid acid enteral composition (**amendment C**) and by the same amendment made to claim 1 of auxiliary request 2, namely amendment A.

Claim 1 of auxiliary request 6 essentially differs from that of auxiliary request 5 by the insertion of the amendment B limitation.

Claim 1 of auxiliary request 7 is identical to that of auxiliary request 6, save for the additional re-inserted limitation "at least 100 mg of" which is also present in claim 1 as granted, further characterising the level of DMCs.

Claim 1 of auxiliary request 8 corresponds to claim 1 of auxiliary request 3, except for the required presence of a stabilising polysaccharide which is high methoxy pectin in the composition prepared in the method and in its step a) (**amendment D**).

By contrast, claim 1 of auxiliary request 9 differs from that of auxiliary request 8 by the same amendment as made to claim 1 of auxiliary request 2, substituting "at least 100 mg of" with "in an amount ranging between 100 and 600 mg per 100 ml" to characterise the level of DMCs (amendment A). In claim 1 of auxiliary request 10, both features are present to specify the DMC concentration.

Claim 1 of auxiliary request 11 essentially differs from that of auxiliary request 8 by amendment B (as also made to auxiliary request 4), and claim 1 of auxiliary request 12 contains additionally the "amendment A" limitation characterising the DMC level. As a further limitation over claim 1 of auxiliary request 12, in claim 1 of auxiliary request 13, "at least 100 mg of" has been maintained next to the added "divalent metal cations in an amount ranging between 100 and 600 mg per 100 ml".

Claim 1 of auxiliary requests 14 and 15 is essentially identical to the claim 1 of auxiliary requests 6 and 7, save for the presence of amendment D as a further limiting feature in each claim 1.

Claim 1 of auxiliary requests 16 to 23 essentially differs from claim 1 of auxiliary requests 4, 6, 7 or 11 to 15 in that amendment B has been reversed by the wording "[...] globular protein, which globular protein is whey protein[,]", limiting the globular protein to whey protein.

Finally, claim 1 of auxiliary request 24 is identical to claim 1 of auxiliary request 4.

VI. The patent proprietor's arguments relevant to the present decision can be summarised as follows.

(a) As regards *claim interpretation*, claim 1 of all requests required an upper limit for the duration of the direct steam injection (DSI) of 10 seconds, not "about 10 seconds".

(b) The subject-matter of claim 1 as granted involved an *inventive step*. No essential features were

missing from claim 1. It was clear that 100 mg of DMCs clearly specified the minimum concentration "per 100 ml", not an absolute amount. It followed from Examples 1 to 10, 14 and 15 and from Comparative Examples 11 to 13 that this minimum level of DMCs and the order of homogenisation and DSI brought about the sought effects to reduce sandiness and/or astringency. This could not be derived from the prior art in an obvious way.

Document D16 was unsuitable for drawing a conclusion on the effect of reversing the order of homogenisation and DSI. Likewise, sample A of D16 was an isolated example at the limits of the composition and process features claimed. None of the cited prior-art documents suggested that problems with astringency in an acidic composition according to D6, containing 9-20 g/100 ml of the globular protein and DMCs, would be alleviated by increasing the DMC content to at least 100 mg/100 ml and having the homogenisation followed by the DSI. Nor was the missing link derivable from D2 and/or D14 as secondary sources of information. Likewise, the subject-matter of claim 14 as granted involved an inventive step.

Similarly, the subject-matter of each of auxiliary requests 1 to 24 involved an inventive step.

VII. The opponents' arguments relevant to the present decision can be summarised as follows.

(a) Claim 1 of the third auxiliary request lacked inventive step in view of, among other things, document D6 as the closest prior art and common

general knowledge as reflected in documents D14 and D20, optionally in combination with document D2.

In view of the results obtained in document D16, no effect of inserting a homogenisation step prior to DSI had been demonstrated for variants of claim 1 of that request which did not comprise methoxy pectins as a protein stabiliser. An effect of the minimum level of DMCs as the second distinguishing feature over D6 had not been demonstrated either. Moreover, there were no comparative examples on file vis-à-vis Example 3 of D6. Variants of D6 that included methoxy pectin stabilisers would even necessarily require an upstream homogenisation to break up protein aggregates and to ensure optimum contact between protein and pectin. This was demonstrated by the teaching of document D14, reflecting common general knowledge in the field concerned. Document D2 taught DMC levels comfortably falling within the scope of claim 1 for enteral compositions comprising whey proteins and that these cations did not significantly lead to protein aggregation at pH 4.

Consequently, an inventive step could not be acknowledged.

(b) Similarly, the claimed subject-matter of the main request and auxiliary requests 1, 2 and 4 to 24 lacked an inventive step.

VIII. Final requests

The appellant (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted (main request). Alternatively,

the patent proprietor requested that the patent be maintained on the basis of one of auxiliary requests 1 to 7 filed with the statement of grounds of appeal, one of auxiliary requests 8 to 15 filed with its reply to the opponents' grounds of appeal or one of auxiliary requests 16 to 24 filed with its letter of 13 February 2023.

The appellants (opponent 1 and opponent 2) requested that the decision under appeal be set aside and that the European patent be revoked.

Reasons for the Decision

1. Inventive step - auxiliary request 3

1.1 This request corresponds to auxiliary request 5 which was held allowable by the opposition division.

1.2 The patent

The patent is concerned with a method for preparing a sterilised liquid or semi-solid acid enteral composition comprising a high amount of non-hydrolysed globular proteins and a high amount of divalent metal cations (DMCs) (see paragraph [0001] of the patent). The prepared product should, *inter alia*, have no or low astringency and/or no or a low sandiness as organoleptic properties (see paragraph [0011] of the patent).

1.3 Closest prior art

D6 is concerned with providing sterilised enteral nutritional compositions comprising a high amount of globular proteins having a smooth mouthfeel and a good taste. Consequently, this document is directed to the same or similar purpose as the patent and thus qualifies as a potential closest prior art. D6 not mentioning "astringency" is thus not relevant for determining the closest prior art. Since the subject-matter of claim 1 of auxiliary request 3 is held to be obvious in view of document D6, it can be left unanswered whether any of the other documents invoked by the parties as alternative pieces of closest prior art represents an even more suitable starting point for assessing inventive step.

1.4 Distinguishing features

1.4.1 Starting from Example 3 of document D6, the patent proprietor has identified the following distinguishing features:
i) a homogenisation step prior to direct steam injection (DSI)
ii) a level of DMCs of at least 100 mg per 100 ml composition
iii) a holding time of about 0.5 to 10 seconds

1.4.2 As to feature ii), the board observes that the metal cation level is not disclosed in Example 3 of D6 and that the indication "100 mg" in claim 1 is interpreted as meaning "100 mg per 100 ml". From a technical perspective, this is the only meaningful interpretation since absolute amounts of cations - irrespective of their concentration - would make no sense. Similarly, the preamble "[...] composition comprising per 100 ml"

in claim 1 signals that the amounts of the constituents are provided per 100 ml.

1.4.3 As to feature iii), the board notes that the patent proprietor did not rely on this feature at the oral proceedings. Moreover, a holding time of 11 seconds for the DSI step in D6 falls within the scope of claim 1: "about" 10 seconds in claim 1 includes a value of 11 seconds (see paragraph [0041] of the patent). It thus does not constitute a further distinguishing feature.

1.4.4 Thus, only features i) and ii) are distinguishing features.

1.5 Technical effect and objective technical problem

1.5.1 According to the patent proprietor, the claimed process results in reduced astringency and/or sandiness of the acid enteral composition.

1.5.2 The board is not convinced for the reasons set out below.

1.5.3 With regard to feature i), opponent 2 has corroborated by submitting document D16 that performing a homogenisation step prior to DSI is not associated with any advantageous effect that could be observed across the full scope claimed. In D16, acid enteral compositions are prepared at pH 3 using optionally upstream homogenisation for sample A, a pre-heating step at 80°C, DSI under conditions falling under claim 1, and a final homogenisation step after DSI in both samples A and B. D16 shows noticeable astringency for both samples A and B under the conditions chosen and, contrary to the argument of the patent proprietor, no

statistically relevant differences between the samples in astringency or sandiness in organoleptic tests.

The "Sample A" embodiment of D16 falls within the scope of claim 1, which does not exclude further homogenisation steps after the DSI step. Hence, the patent proprietor's argument that D16 did not elucidate the effect of reversing the homogenisation and DSI steps is irrelevant.

D16 shows that there was no significant effect associated with inserting a homogenisation step prior to DSI for subject-matter encompassed by claim 1.

The patent proprietor argued that D16 had been provided as an isolated example at the limits of the composition and process features of claim 1. To the board, this argument is not persuasive. A pH value of 3 is clearly encompassed by claim 1, as is the pre-heating temperature of e.g. 80°C (see above) and a divalent metal ion content at the lower limit of 100 mg per 100 ml composition.

The patent proprietor's argument that the experiments performed in D16 deviate from the conditions applied in the patent's examples is thus not decisive. The opponents correctly countered that a technical problem must be credibly solved over the full scope of a patent claim for that problem to be considered for the assessment of inventive step.

As correctly pointed out by the opponents, the scope of claim 1 is significantly broader than that covered by the examples of the patent (e.g. in terms of pre-heating temperature). That such conditions chosen in D16 - such as a pre-heating temperature of 80°C - might

be detrimental to the effects sought (as stated by the patent proprietor) does not change this conclusion.

Likewise, there is thus no room for concluding, as submitted by the patent proprietor, that the skilled person would carefully use process conditions the patent specifically shows to be suitable to achieve the desired effect.

1.5.4 The patent proprietor relied on Example 11 of the patent to demonstrate the effect of feature i). Example 11 was in line with the teaching of D6 in terms of the order of the DSI and homogenisation steps and its composition. This order was reflected in paragraph [0111] and claims 9 and 27 of D6.

Regarding the nature of the nutritional compositions, the composition of Example 3 of D6 fell within the scope of claim 1. Likewise, according to the patent proprietor, the compositions of D6 could also include pectins (see paragraph [0087]) and even methoxy pectins as described on page 3, line 5 from the bottom of the page (referring to highly methoxylated pectin). Hence, Example 11 of the patent was representative of D6 and demonstrated the effect associated with distinguishing feature i), resulting in reduced astringency when comparing Example 11 with Example 1 of the patent.

This line of argument is not persuasive. The temperature chosen in Example 11 for the pre-heating step is 60°C, while D6 also proposes pre-heating temperatures of up to 80°C, as applied in Example 3 of D6. The opponents correctly stated that claim 1 was not limited to the examples of the patent. The opponents stressed that the patent allowed for heating temperatures of up to 90°C in steps a) and b).

Likewise, the pre-heating temperature was not limited in claim 1. The board agrees with these arguments and concludes that claim 1 encompasses pre-heating temperatures of 80°C, as applied in D16 and in Example 3 of D6, and/or of further heat treatment at temperatures of up to 90°C in steps a) and b) that precede the DSI step.

It follows from the wording of claim 1 that its scope is not limited to true solutions. It is clear to a skilled person that aqueous phases comprising fat typically form an emulsion or suspension. Similarly, claim 1 allows for the presence of a "semi-solid" enteral composition, and the examples refer to the term "solution" also in the context of dispersed minerals. Thus, the patent proprietor's argument that claim 1 stipulated that the components be dissolved is not convincing. Also, the exemplary compositions falling within the scope of claim 1 can comprise aggregates perceived as being "sandy" in organoleptic tests (see Examples 4 and 7 in Table 1).

Thus, Example 11 of the patent is not comparable with Example 3 of D6 in view of, *inter alia*, the different pre-heating temperatures. In this regard, the experiments described in D16 are in line with Example 3 of D6, which also use a pre-heating temperature of 80°C.

At least for these reasons, there is no comparative example on file vis-à-vis Example 3 of D6.

1.5.5 Finally, it is correct that Example 3 of D6 is a formulation example and that there is no indication of which specific whey protein isolate, vegetable oil, whey protein hydrolysate and emulsifier should be used.

However, this argument of the patent proprietor cannot reverse the conclusion that the examples of the patent, in particular Example 11, do not comprise a combination of features that would be representative of Example 3 of D6 for the reasons set out above.

1.5.6 As to feature ii), the board observes that the patent's (Comparative) Example 13, relied upon by the patent proprietor, differs from e.g. Example 1 not only in the DMC level but also the carbohydrate content and the absence of some ingredients such as choline chloride, citric acid and citrates. Example 13 of the patent thus cannot serve to demonstrate any effect that could causally be attributed to feature ii). The fact that choline is an emulsifier (see D23) does not undermine this finding since the effect of the compositional differences is unknown. Similarly, the composition of Example 13 differs in various ways from that described in Example 3 of D6. D6 indeed does not exclude the use of further ingredients which are present in the examples of the patent, such as in (Comparative) Example 13, but that are *absent* in Example 3 of D6 (such as methoxy pectins). However, such a modification is not an embodiment of Example 3 but a variation of it.

1.5.7 The patent proprietor also argued that the examples in Table 1 of the patent showed excellent results in a rising trend from Example 3 containing 131 mg calcium per 100 ml to 250 and further to 401 mg calcium per 100 ml in other examples. In line with this, Example 13 showed the effect of reducing the level of DMCs below a value of 100 mg per 100 ml of enteral composition. This would support the positive effect of feature ii) on sandiness and astringency. Unexpectedly, the detrimental effect of a relatively low level of

divalent metal ions on sandiness and astringency as demonstrated in Example 13 was overcome when increasing the divalent metal ion content in a method where a homogenisation step precedes the DSI. This also supported a functional relationship of the two distinguishing features in view of their relevance on sandiness and astringency.

1.5.8 This line of argument did not convince the board. As correctly stated by the opponents, the examples of the patent comprise a multiplicity of components, and more than one parameter is varied at a time in the examples. It was discussed at the oral proceedings that the level of carbohydrates is changed from 4.3 g/100 ml to 4.8 g/100 ml in e.g. Example 3 vs. Example 1 in Table 1. The patent proprietor argued that it was not credible that this difference had an effect.

However, as DMCs were known to contribute to astringency (see paragraphs [0010] and [0011] of the patent), the patent proprietor has not demonstrated that the level of DMCs/feature ii) called for in claim 1 achieves improvements in astringency and/or sandiness.

1.5.9 Finally, the compositions of D6 are said to solve the problem posed in that document. As outlined in paragraph [0012] of D6, this problem is to produce "shelf-stable, oral and drinkable liquid whey protein products that possess appealing organoleptic properties (good texture and sensorial taste, e.g., smooth and creamy with a pleasant taste without sandiness and bitter mouth taste)". While this statement in D6 does not prove that that problem has indeed been solved, it does at least not teach towards an improvement achieved

over Example 3 of D6, let alone over the full scope claimed.

1.5.10 Thus, the effect relied upon by the patent proprietor, i.e. improved organoleptic properties (astringency and/or sandiness) of the enteral compositions, is not credibly achieved over the full scope of claim 1.

1.5.11 Therefore, the problem to be solved in view of D6 is to provide an *alternative* method for the preparation of a sterilised liquid or semi-solid acid enteral composition.

1.6 Obviousness

1.6.1 The board agrees with opponent 2 that, when confronted with this problem, the skilled person would have contemplated swapping the order of homogenisation and DSI. Conducting homogenisation steps at different stages of processing milk-based products which contain lipids was standard practice prior to the priority date of the patent. This has been substantiated by the opponents, and even D6 shows such a reversed order of homogenisation and DSI (see Example 4), as required in feature i).

Hence, the patent proprietor's argument that it was common general knowledge as reflected by e.g. document D8 to perform homogenisation after heat treatment and that this order would thus not have been altered in D6 is not convincing.

Likewise, the proprietor's argument that Example 4 of D6 relates to a different composition comprising, *inter alia*, a different ratio of acidified/hydrolysed vs. natural whey does not lead to a different conclusion,

namely that the step of reversing the order of the DSI and homogenisation steps was known.

Furthermore, as discussed during the oral proceedings before the board, the implementation of feature i) optionally also encompasses incorporating an *additional* homogenisation step prior to DSI in Example 3 and keeping the homogenisation after DSI rather than exchanging the order of homogenisation and DSI.

The patent proprietor rebutted this argument and stated that the flow chart in paragraph [0111] of D6 did not disclose such an inserted homogenisation step.

However, as indicated above, the board takes the view that performing such an upstream homogenisation is a known operation in the field and could thus be implemented without inventive activity.

Likewise, document D2 teaches such an upstream homogenisation of a liquid nutritional composition *prior to heat treatment in the examples directed to heat-treated non-hydrolysed whey proteins*. D2 discloses the preparation of sterilised liquid enteral compositions which contain high amounts of whey protein. Such a pre-emulsification step is also compatible with the teaching of D6 and represents a usual measure for preparing liquid nutritional compositions which comprise significant amounts of fat. The teachings of D2 and D6 are thus mutually compatible.

1.6.2 The implementation of the feature relating to the DMC level (distinguishing feature ii) would be obvious to a skilled person in view of D6 and common general knowledge. D6 envisages the use of the nutritional

compositions as a sole source of nutrition in paragraph [0104]. Such compositions must thus be nutritionally "complete" and include, *inter alia*, adequate levels of calcium (and magnesium) ions. It also follows from common general knowledge as reflected by document D20 that a "complete" version of the composition of Example 3 has to contain at least 80.5 mg and at most 376.5 mg of DMCs per 100 g (translating into approximately 100 ml under the assumption of a density of about 1 g per ml; see point 8.2.7.2.4 of opponent 2's appeal brief). D6 does not teach against increasing the DMC level to at least 100 mg per 100 ml, and D2 would even encourage the skilled person to increase the calcium content at pH values below 5 to levels as required in nutritionally complete enteral compositions.

D2 mentions that "[a]t pH 4, the protein carries a net positive charge and is less sensitive to calcium-induced aggregation" (see page 7, third paragraph). Whether this statement is in line with the results obtained in the patent, in particular with Example 13, is not relevant since the knowledge of the patent was not available to the skilled person. The nutritional compositions of D2 are preferably also nutritionally complete and comprise divalent metal ions in amounts as stipulated in claim 1. The mineral levels had only small effects on final product characteristics such as particle size, viscosity and shelf life stability in Composition A3. D2 thus also conveys that the addition of further calcium to compositions like the one featured in Example 3 of D6 would not pose a problem in respect of protein aggregation.

1.6.3 Hence, the subject-matter of claim 1 of auxiliary request 3 is obvious to the skilled person in view of D6 in combination with document D2 and optionally

common general knowledge (as reflected in D20). It thus does not meet the requirement of Article 56 EPC.

1.6.4 For completeness, for the variants of claim 1 including high methoxy (ester) pectins as a stabilising agent, which are also proposed in document D6, a homogenisation step prior to DSI even seems to be *compulsory*. In this regard, document D14/D14a reflects common general knowledge of a skilled person working in the field of dairy products prior to the relevant date. It teaches, *as does document D6 itself*, that high methoxy (ester) pectins can be used to stabilise milk-based proteins, such as whey proteins, against aggregation. *A homogenisation step should be performed prior to the heat-treatment to break up protein aggregates*. This order of process steps ensures optimum contact between pectin and proteins (see Figure 12.5 and the section "Acid dairy drinks" on pages 290/291 of D14a). This mechanism of action seems to be limited neither to dairy products comprising low levels of milk proteins, nor specific protein concentrations, nor specific heat treatments such as pasteurisation.

Finally, the decision T 1827/08 referred to by the patent proprietor does not support its case. The scenario underlying the current case differs from the case underlying T 1827/08 in that document D14 as a secondary source of information is directed to the same technical field as the closest prior art.

2. Inventive step - main request and auxiliary requests 1 and 2

The scope of claim 1 of the main request and auxiliary requests 1 and 2 includes the subject-matter of claim 1 of auxiliary request 3. Hence, the lack of inventive

step in view of D6 found for auxiliary request 3 also applies here for the reasons mentioned above.

3. Inventive step - auxiliary requests 4 to 24

The finding of a lack of inventive step of auxiliary requests 1 to 3 also applies to the subject-matter of claim 1 of each of auxiliary requests 4 to 24. Each claim 1 of these requests contains further limitations which merely specify the non-hydrolysed protein as whey protein (as in auxiliary request 4), restrict the compositions to liquid compositions (as in auxiliary request 5), additionally require high methoxy pectins (as in auxiliary request 8) and/or re-insert the term "globular" (as in auxiliary request 16). They thus do not contain further distinguishing features vis-à-vis document D6 other than those already discussed above.

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