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Datasheet for the decision of 29 January 2010

Case Number: T 0480/07 - 3.3.09

Application Number: 98939580.1

Publication Number: 0994658

IPC: A23L 1/48

Language of the proceedings: EN

Title of invention:
Pourable edible aqueous-continuous emulsions

Patentee:
Unilever N.V., et al

Opponent:
Friesland Brands B.V.

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 54, 56, 83

Keyword:
"Inventive step (no) - obvious alternative"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0480/07 - 3.3.09

D E C I S I O N
of the Technical Board of Appeal 3.3.09
of 29 January 2010

(Opponent) Friesland Brands B.V.
Blankenstein 142
NL-7943 PE Meppel (NL)

Representative: van Loon, C.J.J.
Vereenigde
Johan de Wittlaan 7
NL-2517 JR Den Haag (NL)

Respondents: (Patent Proprietors) Unilever N.V.
Weena 455
NL-3013 AL Rotterdam (NL)

Unilever PLC
Unilever House
Blackfriars London, Greater London
EC4P 4BQ (GB)

Representative: Wurfbain, Gilles L.
Unilever Patent Group
Olivier van Noortlaan 120
NL-3133 AT Vlaardingen (NL)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office announced orally on 7 December 2006 and posted 12 January 2007 rejecting the opposition filed against European patent No. 0994658 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: W. Ehrenreich
Members: M. Müller
W. Sekretaruk

Summary of Facts and Submissions

I. European patent application No. 98939580.1 was filed as International patent application PCT/EP98/04030 in the name of UNILEVER N.V and UNILEVER PLC on 24 June 1998. A European patent with the No. 0 994 658 and entitled "POURABLE EDIBLE AQUEOUS-CONTINUOUS EMULSIONS" was granted with thirteen claims. The mention of the grant was published on 23 April 2003 in Bulletin 2003/17.

The granted patent comprises two independent Claims 1 and 11 which read as follows:

"1. A pourable, edible emulsion comprising a continuous non-gelled aqueous phase and a dispersed phase of gel particles, wherein the gel particles occupy from 20 to 70% of the volume of the aqueous phase and the gel particles comprise hard particles of biopolymer gel and soft particles of biopolymer gel."

"11. A process for preparing a pourable, edible emulsion comprising the steps of:
(a) preparing hard particles of biopolymer gel and soft particles of biopolymer gel; and
(b) admixing a non gelled aqueous phase and the hard particles and the soft particles to form an emulsion comprising a continuous non-gelled aqueous phase and a dispersed phase of particles of biopolymer gel occupying from 20 to 70% of the volume of the aqueous phase."

II. A notice of opposition was filed by Friesland Brands B.V. on 23 January 2004. The Opponent requested the revocation of the patent in its entirety on the basis

of Article 100(a) EPC 1973 (lack of novelty and inventive step). The following documents were inter alia submitted during opposition proceedings:

D2: EP-B-0355908
D3: US 5,458,904

III. In response to the notice of opposition, the proprietor requested maintenance of the opposed patent on the basis of the claims as granted. Oral proceedings were held before the opposition division on 07 December 2006. At the end of the oral proceedings, the opposition division decided to reject the opposition.

In the decision, novelty of the subject-matter of the opposed patent in view of inter alia D2 and D3 was acknowledged as, in the opposition division's view, D2 did not disclose the volume percentage of gel particles as cited in the present claims and the claimed subject-matter constituted a multiple selection of features not explicitly disclosed in combination in D3.

With regard to inventive step, the opposition division considered D3 to represent the closest prior art with regard to which the objective problem was seen to be the production of an alternative gel system. The solution was not considered obvious in view of the cited documents. In this respect, the opposition division held that D2 was directed to a different problem to that of D3, so that a combination of the teachings of D3 with D2 would not be likely. Accordingly, the opposition division acknowledged inventive step for the subject-matter of the opposed patent.

IV. On 16 March 2007, the Appellant (opponent) filed a notice of appeal against the above decision with simultaneous payment of the prescribed fee. A statement setting out the grounds of appeal was filed on 22 May 2007 including "Test Report 2" in which example 4 of D2 was reworked (hereinafter D7).

A further test report (hereinafter D8) was filed with letter dated 8 May 2008 in support of the Appellant's position that example 4 of D2 was novelty-destroying.

V. A new set of Claims 1 to 12 as basis for an auxiliary request was submitted by the Respondent with letter dated 23 December 2009. Contrary to the granted claims, the set of claims no longer contained any product claims. Independent process Claim 1 was identical to Claim 11 as granted.

VI. The arguments of the Appellant provided in its written submissions, were inter alia as follows:

– Novelty in view of D2

The reworking of example 4 of D2 in D7 and the characterisation of the obtained sample by a temperature dependent viscosity measurement and confocal laser scanning microscopy (CSLM) proved that in this example, a mixture of kappa and iota carrageenan gel particles is obtained that are present in a volume fraction that lies within the range cited in the present independent claims. Therefore, example 4 of D2 was novelty-destroying to the claimed subject-matter.

– Novelty in view of D3

Starting from the second embodiment of D3 (column 5, lines 18 - 40), no multiple selection would be necessary to arrive at the subject-matter as claimed in the opposed patent. Furthermore, the presence of further gel formers such as milk protein in D3 did not imply that the kappa and iota carrageenan is not present as particles as evidenced by paragraph [0039] of the opposed patent where hard and soft gel particles are disclosed in combination with further gel forming polymers.

– Inventive step

In view of D3 as closest prior art and the volume fraction cited in present Claims 1 and 11 as the distinguishing feature, the objective problem resided in the provision of an alternative system. The solution was available on the basis of column 11, lines 15 - 27 of D3 itself where weight fractions corresponding to volume fractions within the range cited in Claims 1 and 11 of the opposed patent were disclosed. The claimed subject-matter thus lacked an inventive step in view of D3.

Furthermore, the Appellant introduced a fresh opposition ground under Article 100(b) EPC 1973 should the Respondent maintain its view that kappa and iota carrageenan are not present as hard and soft gel particles in D3 due to the presence of further gel formers. In the Appellant's view, under such conditions

the invention in the opposed patent would be insufficiently disclosed (Article 83 EPC 1973) as this would be contrary to the teaching of the opposed patent.

VII. The Respondent provided the following counterarguments:

D7 could not prove that a combination of kappa and iota carrageenan particles was obtained in example 4 of D2 and furthermore the image analysis on the basis of Confocal Laser Scanning Microscopy (CSLM) could not be considered as evidence that the volume fraction of these particles lies within the range cited in present Claim 1. The claimed pourable edible emulsion was therefore novel over D2.

With regard to novelty in view of D3, the Respondent concurred with the argumentation in the opposition division's decision that a multiple selection was necessary to arrive at the claimed subject-matter on the basis of D3.

With regard to inventive step, the Respondent considered D3 to represent the closest prior art in view of which the objective technical problem was seen to be the provision of an alternative system. According to the Respondent, D3 did not teach or suggest to use emulsions containing two different gel particles falling under the definition of hard and soft gel particles. Therefore, the skilled person would not arrive at the claimed subject-matter on the basis of D3 alone. Furthermore, due to the fact that D2 was dealing with a different problem, said subject-matter was not considered derivable from D3 in combination with D2.

VIII. On 29 January 2010, oral proceedings were held before the Board. During the oral proceedings, novelty and inventive step of the subject-matter according to the main and auxiliary request in view of D3 were discussed. The arguments put forward by the parties were in principle the same as those provided in their written submissions.

As to inventive step the parties agreed that D3 was representative of the closest prior art and that the problem to be solved when starting from D3 was the provision of an alternative gel system. Furthermore, the Respondent acknowledged that no effect was linked to the volume fraction of gel particles cited in the present claims.

IX. The Appellant requested that the decision under appeal be set aside and that the European patent No. 0994658 be revoked.

X. The Respondent requested that the appeal be dismissed or the European patent be maintained on the basis of the auxiliary request filed 23 December 2009.

Reasons for the Decision

1. The appeal is admissible.

2. Novelty

2.1 Novelty of the subject-matter of Claim 1 according to the main request in view of D3

2.1.1 Claim 1 is directed to a pourable, edible emulsion

(i) comprising a continuous non-gelled aqueous phase and

(ii) a dispersed phase of gel particles, wherein

(iii) the gel particles occupy from 20 to 70% of the volume of the aqueous phase and

(iv) the gel particles comprise hard particles of biopolymer gel and soft particles of biopolymer gel.

2.1.2 D3 ("second embodiment", column 5, lines 18 - 21) discloses a gel formed from undenaturated, defatted whole milk protein and a combination of kappa and iota carrageenan. As evidenced by paragraphs [0036] and [0037] of the opposed patent, kappa and iota carrageenan gels are hard and soft gels, respectively. The gel of the second embodiment of D3 is broken into particles under 2 microns (column 5, lines 21 - 22). This inevitably means that the kappa and iota carrageenans are present in the second embodiment of D3 as hard and soft gel particles.

The Respondent in this respect expressed the view that the additional presence of milk protein in the second embodiment of D3 might imply that the kappa and iota carrageenans are not present as hard and soft gel particles. However, paragraph [0042] of the opposed patent discloses hard and soft gel particles in combination with dairy, i.e. milk proteins. The Respondent's view thus contradicts the clear teaching of the opposed patent. This argument therefore is not convincing and cannot be followed by the Board.

In conclusion, the second embodiment of D3 represents a particulate gel comprising a mixture of hard and soft gel particles, corresponding to the hard particles of biopolymer gel and soft particles of biopolymer gel cited in present Claim 1 (feature (iv)).

2.1.3 According to column 11, lines 15 - 17 of D3, the particulate gel (fat substitute) can be added in virtually any amount to a particular food product, such as from 0.01 - 100 wt% of the final food product. As not disputed by the parties, the disclosed amount of 0.01 - 100 wt% of particulate gel embraces the amount of 20 - 70 vol% of gel particles cited in present Claim 1 (feature (iii)).

2.1.4 The food products to which the particulate gel can be added as fat substitute are exemplified in D3 (column 10, lines 43 - 60) by a list of various products including salad dressings and low fat milk. Salad dressings and low fat milk are liquids and thus correspond to the pourable edible emulsion as claimed in present Claim 1.

2.1.5 The salad dressing or low fat milk that comprise the gel particles are made in D3 by first preparing the gel particles in the presence of some of the final aqueous phase (column 5, lines 18 - 41) and by then adding them to the salad dressing or low fat milk that contain further water. This is identical to the way the emulsions claimed in the opposed patent are made (paragraphs [0019] and [0021] and examples of the opposed patent). Consequently, the water and particles present in the salad dressing or low fat milk of D3 must be in the form of a continuous non-gelled aqueous

phase and a dispersed particulate phase, as required by present Claim 1 (features (i) and (ii)).

Thus, D3 describes all features of present Claim 1. However, these features are not disclosed in combination in D3: starting from the second embodiment of D3 (column 5, lines 18 - 40),

(a) one has to select the salad dressing or low fat milk out of a list of products disclosed in column 10, lines 43 - 60 of D3 and

(b) one has to further select a weight percentage within the broad range of 0.01 - 100 wt% disclosed in column 11, lines 15 - 17 of D3 that corresponds to a volume percentage of from 20 to 70% as cited in present Claim 1.

Such a multiple selection from the disclosure in D3 cannot prejudice novelty of the claimed subject-matter.

2.1.6 Consequently, novelty of the subject-matter of present Claim 1 in view of D3 has to be acknowledged.

2.2 Novelty of the subject-matter of present Claim 11 according to the main request in view of D3

2.2.1 Claim 11 is directed to a process for preparing a pourable, edible emulsion comprising the steps of

(i) preparing hard particles of biopolymer gel and soft particles of biopolymer gel; and

(ii) admixing a non gelled aqueous phase and the hard particles and the soft particles

(iii) to form an emulsion comprising a continuous non-gelled aqueous phase and a dispersed phase of particles of biopolymer gel

(iv) occupying from 20 to 70% of the volume of the aqueous phase.

2.2.2 As has been stated above (point 2.1.2), D3 ("second embodiment", column 5, lines 18 - 21) discloses the preparation of a mixture of hard and soft particles of biopolymer gel (kappa and iota carrageenan particles). This corresponds to feature (i) as cited in present Claim 11.

Furthermore, as has been stated in point 2.1.4, D3 (column 10, lines 43 - 60) discloses the addition of the gel particles to e.g. salad dressings or low fat milk. The latter comprise a non-gelled aqueous phase. Consequently, by way of adding the gel particles to the salad dressings or low fat milk, the gel particles are admixed with a non-gelled aqueous phase, corresponding to feature (ii) in present Claim 11.

As further stated above in point 2.1.5, in the resulting material, the water and gel particles are in the form of a continuous non-gelled aqueous phase and a dispersed particulate phase, corresponding to feature (iii) of present Claim 11.

Furthermore, the range of weight percentages of added gel particles (column 11, lines 15 - 17 of D3) embraces a volume percentage of 20 - 70%, corresponding to feature (iv) of present Claim 11.

Finally, salad dressings and low fat milk are liquids and thus constitute a pourable, edible emulsion corresponding to the product prepared according to present Claim 11.

2.2.3 In conclusion, D3 describes all process features of present Claim 11. However, these features are not disclosed in combination in D3 and the same considerations as made above in conjunction with the product according to Claim 1 therefore apply.

2.2.4 Consequently, the subject-matter of present Claim 11 is novel in view of D3.

2.3 From points 2.1 to 2.2.4 it follows that the subject-matter of independent Claims 1 and 11 and hence all claims of the main request is novel in view of D3.

2.4 Novelty of the subject-matter of the auxiliary request in view of D3

As the only independent Claim 1 of the auxiliary request is identical to Claim 11 of the main request, the subject-matter according to the auxiliary request is also novel in view of D3.

3. Inventive step - Main and Auxiliary Request

3.1 The opposed patent

The opposed patent is concerned with pourable, edible, in particular low- or zero-fat, aqueous-continuous emulsions on the basis of particulate gel systems that give a fatty mouth feel and are therefore suitable to mimic fat (patent specification, paragraphs [0001] to [0006]).
According to Claims 1 and 11 of the main request and Claim 1 of the auxiliary request the property of fatty

mouth feel is achieved by providing an emulsion with a continuous non-gelled aqueous phase and a dispersed phase of hard and soft gel particles which occupy from 20 to 70% of the volume of the aqueous phase.

3.2 Selection of closest prior art

In the same way as the opposed patent, D3 is directed to particulate gel systems that give a fatty mouth feel and therefore are suitable to mimic fat (D3: column 1, lines 10 - 23 and column 2, lines 28 - 30). As acknowledged by both parties, D3 therefore can be considered to represent the closest prior art.

3.3 Distinguishing feature

As has been stated above, the second embodiment of D3 differs from the subject-matter of present independent Claims 1 and 11 of the main request and Claim 1 of the auxiliary request in that

(a) the emulsion is pourable and

(b) a volume percentage of 20 - 70% of gel particles is present.

3.4 Objective technical problem

No criticality is attributed in the opposed patent and no effect has been demonstrated to be linked to the feature that the compositions cited in the present independent claims are pourable emulsions. Furthermore, as explicitly confirmed by the Respondent during oral proceedings before the Board, no evidence has been provided that any effect is linked to the claimed volume percentage of gel particles of from 20 to 70%.

As agreed by both parties, the objective technical problem solved by the distinguishing features therefore resides in the provision of an alternative composition or process.

3.5 Obviousness of solution

As has been stated above, the solution to this problem can be derived from a selection of (a) a pourable emulsion and (b) a weight fraction of the soft and hard particles, which results in a volume fraction of 20 to 70%, from the disclosure in D3. In view of the fact that no effect is linked to these selections, they represent arbitrary selections of equally suggested embodiments in D3. Any such arbitrary selection cannot establish inventive step.

3.6 Consequently, the subject-matter of the main and auxiliary request lacks inventive step in view of D3.

4. The claims according to the main and auxiliary request are therefore not allowable.
The necessity to discuss the relevance of D2 or the conditional objection according to Article 83 EPC 1973 does therefore not arise.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The European patent is revoked.

The Registrar The Chairman

G. Röhn W. Ehrenreich