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**Datasheet for the decision
of 14 January 2022**

Case Number: T 0769/18 - 3.3.09

Application Number: 01983593.3

Publication Number: 1337161

IPC: A23L1/24, A23L1/39

Language of the proceedings: EN

Title of invention:

OIL-IN-WATER FOODSTUFF EMULSION OF THE MAYONNAISE TYPE HAVING
A REDUCED FAT LEVEL, AND A PROCESS FOR ITS PREPARATION

Patent Proprietor:

SOCIETE DES PRODUITS NESTLE S.A.

Opponents:

UNILEVER NV
UNILEVER PLC

Headword:

Stable oil-in-water foodstuff emulsions/NESTLE

Relevant legal provisions:

EPC Art. 54, 56, 100(a), 100(b), 100(c), 101(1)
EPC R. 84(1)
RPBA Art. 12(4)
RPBA 2020 Art. 12(2)

Keyword:

Continuation of opposition-appeal proceedings after lapse of the patent requested by the patent proprietor - (yes)

Main request: added subject matter - (no), sufficiency of disclosure - (yes), novelty - (yes), inventive step - (yes)

Decisions cited:

T 0210/11

Catchword:



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Case Number: T 0769/18 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 14 January 2022

Appellant: SOCIETE DES PRODUITS NESTLE S.A.
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Decision under appeal: **Interlocutory decision of the Opposition**
Division of the European Patent Office posted on
7 February 2018 concerning maintenance of the
European Patent No. 1337161 in amended form.

Composition of the Board:

Chairman A. Haderlein
Members: A. Veronese
 F. Blumer

Summary of Facts and Submissions

- I. Appeals were filed by the patent proprietor and the joint opponents (Unilever NV and Unilever PLC) against the opposition division's decision holding that the patent as amended according to auxiliary request 6, filed during the oral proceedings before the opposition division, complied with the EPC.
- II. The decision was based *inter alia* on a main request, the patent as granted, and the aforementioned auxiliary request.
- III. Claims 1 and 10 as granted read:

"1. A foodstuff in the form of an oil-in-water emulsion of the mayonnaise type, comprising an edible oil or fat in an amount of from 55 up to 75%, an emulsifier in an amount of up to 10%, an edible acid and water, and, optionally, additional ingredients selected from sugar or sweetener, salt and other taste improving ingredients, without any thickener, the viscosity of the emulsion measured at 20 °C at a shear rate of 10 s⁻¹ being comprised between 5 and 40 Pa·s, wherein the average size of the oil droplets in the emulsion is below 10 µm."

"10. A process for the preparation of an oil-in-water emulsion according to any of claims 1 to 9, comprising mixing together all ingredients of the final emulsion to obtain a pre-emulsion having an oil content comprised between 55 and 75%, without any thickener, and pumping said pre-emulsion at a pressure of less than 100 bar through a pipe comprising at least one

transversal plate, said plate having at least one opening and wherein the average size of the oil droplets in the emulsion is below 10 µm."

IV. The documents submitted during the opposition proceedings included:

- D2: EP 1 206 914 A1
- D4: EP 1 222 957 A1
- D8: US 4 062 979
- D9: US 4 923 707
- D10: WO 00/78162
- D12: US 6 068 876
- D14: US 5 958 498
- D17: J. Schormüller (ed.), *Handbuch der Lebensmittelchemie, Band IV, Fette und Lipoide (Lipids)*, Springer, Berlin, 1969, pp. 1006-1012
- D18: US 4 957 768
- D19: J.M. Franco *et al.*, *Food Hydrocolloids*, Vol. 9(2), 1995, pp. 111-121
- D20: US 4 4996 004

V. In the decision under appeal, the opposition division found, *inter alia*, that:

- claims 1 and 10 as granted did not contain added subject-matter extending beyond the content of the application as filed
- the claimed invention was sufficiently disclosed
- D2 and D4 were not prior art under Article 54(3) EPC and the claimed subject-matter was novel

- the claimed subject-matter did not enjoy priority right and D10 was state of the art
- the composition of claim 1 did not involve an inventive step over D10 and the process of claim 10 did not involve an inventive step over a combination of D10 and D20

VI. As all parties are appellants and thus also respondents, for simplicity they will continue to be referred to as the patent proprietor and the opponents.

VII. During the appeal proceedings the opponents drew attention to the fact that the patent had lapsed in all contracting states. In a written communication the board asked the parties to indicate whether they requested continuation of the appeal proceedings or whether they agreed that the appeal be terminated without a decision in accordance with Rule 84 EPC. Within the time limit set to reply to the communication pursuant to Rule 84 EPC the proprietor requested that the appeal proceedings be continued. The opponents informed that they did not request continuation of the appeal proceedings. Furthermore, the parties withdrew their earlier conditional requests for oral proceedings.

VIII. The following documents were filed with the opponents' statement setting out the grounds of appeal and the letter dated 2 November 2018, respectively:

D24: L.J. Harrison *et al.*, Journal of Food Quality,
Vol. 8, 1985, pp. 1-20

D25: Experimental Report: "Rework patent examples"

IX. The arguments from the opponents which are relevant for the decision can be summarised as follows.

- The following features characterising the claims as granted and their combination added subject-matter extending beyond the content of the application as filed: the wording "without any thickener" (to the extent that egg yolk was used), the size of the oil droplets, the parameters for determining the viscosity of the emulsion, the deletion of the expression "none of said additional ingredients having a stabilizing and/or thickening functionality" and the deletion of the word "essentially" from the process claim.
- The invention was not sufficiently disclosed; the patent did not provide sufficient information for preparing emulsions comprising low amounts of oil having the required viscosity without using thickening agents; this was confirmed by D25; a method for measuring the size of the oil droplets was not described either.
- The claimed subject-matter did not enjoy priority from the earlier application, and D10 was part of the state of the art.
- The claimed subject-matter lacked novelty over the teaching of D10, D12, D17, D18 and D24.
- The claimed subject-matter lacked an inventive step over the teaching of D10 or, alternatively, D12, D14, D18 or D19 as the closest prior art, possibly in combination with other cited documents; concerning the process claim 10, reference was made to a combination of D10 with D20.

X. The arguments from the patent proprietor which are relevant for the decision can be summarised as follows.

- All amendments made were based on passages of the application as originally filed.
- The patent specification provided sufficient technical information for the skilled person to prepare an oil-in-water emulsion having low amounts of oils without a thickening agent and to measure the size of the oil droplets contained in it; the opponents' allegations were unsubstantiated.
- The claimed invention involved an inventive step over D10, alone or combined with the other cited documents.
- Several documents, e.g. D21, D22, D23 and D24, and attacks of sufficiency, novelty and inventive step were raised for the first time in appeal and should not be admitted.

The requests

XI. The opponents requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

XII. The patent proprietor requested that the decision under appeal be set aside and that the patent be maintained as granted or, alternatively, on the basis of one of auxiliary requests 1 to 6, 1a, 2a, 3a and 5a, all filed with the statement setting out the grounds of appeal.

Reasons for the Decision

Main request (the patent as granted)

1. *Continuation of the appeal proceedings after lapse of the patent*
- 1.1 As noted by the opponents, the European patent register and the national patent registers of Germany and France show that the opposed patent had lapsed in all contracting states. This was not disputed by the parties.
- 1.2 In accordance with Rule 84(1) EPC, if a European patent has lapsed in all contracting states, the opposition proceedings may be continued at the request of the opponent filed within two months of a communication from the European Patent Office informing it of the surrender or lapse. As further indicated in the Case Law of the Boards of Appeal, 9th edition, 2019, section III.Q.1.2, Rule 84(1) EPC also applies, pursuant to Rule 100(1) EPC, to opposition appeal proceedings. Where the European patent expires during ongoing appeal proceedings in all the contracting states and the appellant (opponent) does not request continuation of the proceedings, the proceedings are terminated without any decision on the merits.
- 1.3 The opponents have informed the board that they do not request continuation of the appeal proceedings. The patent proprietor, however, requested continuation.
- 1.4 As decided by the boards in other cases, if the patent proprietor is the appellant, Rule 84(1) EPC should be

applied *mutatis mutandis* in opposition appeal proceedings so that the patent proprietor can also request that the appeal proceedings be continued (see the Case Law of the Boards of Appeal, 9th edition, 2019, section III.Q.1.2.2). For these reasons, the patent proprietor's request was granted, and the appeal proceedings were continued.

2. *Added subject-matter*

2.1 According to the opponents, several features characterising the claims as granted have no basis in the application as originally filed. The board does not agree for the reasons given below.

Claim 1 as granted

2.2 The wording "without any thickener" in claim 1 as granted is based on the passages on page 3, lines 9 to 15 and page 4, first paragraph of the application as filed. These passages teach that the gist of the invention is the preparation of a stable oil-in-water emulsion not comprising a stabilising thickening agent. They also teach that the addition of a thickening agent can be avoided by physical stabilisation.

2.3 Claim 1 as originally filed does not indicate, as claim 1 as granted does, that the viscosity of the emulsion is measured at 20°C at a shear rate of 10s⁻¹. However, since the indicated viscosity is that of a liquid and is expressed in Pa·s, the skilled person would understand that the viscosity is the "dynamic viscosity" specified on page 7, lines 7 to 9 as originally filed. This passage confirms that within the specification, the viscosity "is the dynamic viscosity measured at 20°C, at a shear rate of 10s⁻¹". Thus, the

addition of these parameters to claim 1 as filed does not add subject-matter.

- 2.4 The deletion of the expression "*none of said additional ingredients having a stabilizing and/or thickening functionality*" from claim 1 as originally filed does not add new subject-matter either. The mentioned additional ingredients are taste-improving agents. They are not meant to induce any thickening or stabilising effect according to the application as filed, so the deletion of this qualification is not associated with any change in technical meaning.
- 2.5 The size of the droplets indicated in claim 1 as granted, below 10 μm , is disclosed in the second paragraph of page 6 as filed. This same paragraph specifies that the emulsion has a viscosity of from 5 to 40 Pa·s. Thus, the combination of these features in granted claim 1, in addition to the deletion of the aforementioned expression, does not add subject-matter.
- 2.6 Drawing attention to claims 4 and 5, the opponents argued that "there is no basis for egg yolk not being a thickener" or, in other words, for a composition not comprising a thickener yet comprising egg yolk. However, the skilled person would understand that according to the claimed invention, when egg yolk is used, this is the claimed emulsifier. This is also the teaching of the application as filed (see page 6, lines 14 to 23). Although it might have some thickening properties, in the context of the invention, egg yolk is thus not an excluded "thickening agent".

Claim 10 as granted

2.7 The word "essentially" was deleted from the expression "*process comprising mixing essentially all ingredients*" used in claim 10 as originally filed. It is, however, readily apparent from the original expression that an embodiment in which all ingredients are mixed together to form the claimed pre-emulsion was preferred. This is also in line with page 8, lines 5 to 10 and examples 1 and 2 of the application as filed.

2.8 The deletion of the wording "without any thickener" from claim 10 as granted and the indication of the size of the oil droplets does not add subject-matter for the same reasons discussed for claim 1.

2.9 For these reasons, the claims as granted do not comprise added subject-matter, and the ground for opposition under Article 100(c) EPC does not prejudice the maintenance of the patent.

3. *Sufficiency of disclosure*

3.1 The opponents argued that it would be impossible for a skilled person to prepare a composition as defined in claim 1 without a thickener. They noted that claims 5 and 7 as granted recited the presence of egg yolk and mustard, which both had thickening properties.

3.2 This argument is not persuasive. Reading the patent, e.g. paragraph [0014], [0024] and [0025], the skilled person readily understands that the claimed composition must contain an emulsifier, in particular egg yolk, in the amount given in claim 5. They also understand that it may optionally include other ingredients for improving taste, generically defined in claim 1 and

exemplified in claim 7, for example, mustard. The fact that egg yolk and mustard might have some thickening properties does not disqualify their presence and does not result in the skilled person being unable to carry out the claimed invention.

3.3 The opponents have also asserted that the patent does not indicate the method for determining the size of the oil droplets mentioned in claim 1 and the type of "average size".

3.4 However, several prior-art documents mentioned in the proceedings describing emulsions define the size of the droplets (see, e.g. D10 and D12). This shows that methods for determining their size were known at the filing date. It is possible that different "average sizes" may be obtained by implementing different measuring or computation methods. This could possibly lead to some uncertainty as to the scope of the claims. However, no evidence has been provided that as a result of this ensuing uncertainty, the skilled person would not be able to carry out the invention (see decision T 210/11, point 5 of the Reasons).

3.5 According to the opponents, without a thickener it would have been impossible to prepare emulsions having the claimed viscosity and an amount of oil as low as 55%. In their opinion, this was confirmed by the tests in the experimental report D25.

3.6 This attack is not well founded. The emulsions described in the examples of the patent are stable for at least six months at room temperature. It is true that they comprise 70% oil and particles having an average size of 4 μm . However, no convincing evidence has been provided that emulsions falling within the

claimed scope cannot be prepared using the method; the experimental setting; and the device defined in paragraphs [0016] to [0018], [0033] to [0035] and [0039] to [0047] and example 1 and claim 10 of the patent. It does not appear that the tests described in D25 were conducted using the apparatus and experimental setting used to prepare the emulsions described in the patent and in particular in example 1.

- 3.7 The opponents have also argued that several details required for carrying out the claimed process were missing, for example, the nature of the pre-emulsion, the structure and the dimensions of the apparatus, and the conditions required for carrying out the process.
- 3.8 However, there is no evidence that the skilled person relying on the technical information disclosed in the aforementioned paragraphs of the patent, the referred prior-art documents (e.g. D20) describing the apparatus used in the patent and common general knowledge would not have been able to prepare the claimed emulsions.
- 3.9 For these reasons, the claimed invention is sufficiently disclosed, and the ground for opposition under Article 100(b) EPC does not prejudice the maintenance of the patent.

4. *Novelty*

- 4.1 Novelty objections were raised by the opponents in the appeal proceedings based on D10, D12, D17, D18 and D24. D17 and D24 were cited in the opponents' statement of grounds of appeal; D10, D12 and D18 were cited in their reply to the patent proprietor's appeal. None of these documents was relied on to formulate the novelty attacks raised during the opposition proceedings. The

only novelty attacks raised during those proceedings were based on D2 and D4. These two documents were found not to belong to the prior art in the decision under appeal, and this finding was not disputed by the opponents in their appeal.

4.2 In view of the primary object of the appeal proceedings, which is to review the decision under appeal in a judicial manner, a party's appeal case must be directed to the requests, facts, objections, arguments and evidence on which the decision under appeal was based (Article 12(2) RPBA 2020). The board can hold inadmissible facts, evidence and requests which could have been presented in appeal proceedings (Article 12(4) RPBA 2007). The new attacks against the granted claims are based on new facts and evidence and could have been raised during the opposition proceedings. Admitting these attacks in appeal would create a substantially fresh case, compelling the board to give a first ruling on these issues or obliging it to remit the case to the opposition division. This would run counter to orderly and efficient proceedings. Thus, these attacks are not admitted into the appeal proceedings.

4.3 For these reasons, the ground for opposition under Article 100(a) EPC in combination with Article 54 EPC does not prejudice the maintenance of the patent.

5. *Inventive step*

The claimed invention and the closest prior art

5.1 The claimed invention relates to a foodstuff in the form of an oil-in-water emulsion of the mayonnaise type. According to claim 1 and paragraphs [0004],[0005]

and [0015] to [0018] of the opposed patent, the invention aims at providing an emulsified foodstuff which is stable, despite the fact that it contains an amount of oil below 75% and does not contain thickening agents. The description of the patent describes the preparation of emulsions having adequate stability and the claimed particle size and viscosity.

- 5.2 In the decision under appeal, the opposition division decided that D10 is the closest prior art. The patent proprietor has not disputed the opposition division's finding that the claimed invention does not validly claim priority from the earlier patent applications and that, for this reason, D10, published in the priority period, is part of the prior art.
- 5.3 D10 describes the preparation of mayonnaises comprising diglycerides and an egg yolk enriched with lysophospholipids. Examples of such mayonnaises are shown in table 2 on page 12, examples 1 to 6. These mayonnaises, which comprise a thickener, are compared to a "comparative example 1", which comprises 70% of an oil made essentially of triglycerides and 15% non-enriched egg yolk and does not contain a thickener. All the mayonnaises, including that of comparative example 1, were obtained by emulsification in a colloid mill rotating at 5000 rpm and contain particles of an average size of 2.5 to 3.5 μm , page 11, second paragraph.
- 5.4 The passage bridging pages 11 and 12 teaches that, after storage for six months, the mayonnaise of the comparative example has excellent appearance, physical properties and taste.

5.5 Despite the fact that it is only used for comparative purposes, comparative example 1 conveys the teaching that a stable oil-in-water emulsion comprising 70% of an oil in water can be prepared without the use of a thickener. Even if this comparative example does not represent the invention disclosed in D10, the opposition division's decision to select this example as the closest prior art is not wrong. The patent proprietor argued that D10 is not a suitable starting point but did not propose any alternative document, whereas the opponents still considered D10 as the closest prior art (see page 16 of their letter of 2 November 2018). Thus, the board sees no reason to deviate from the opposition division's decision to start from D10 as the closest prior art.

Distinguishing features

5.6 The mayonnaise of comparative example 1 comprises 15% egg yolk. Egg yolk is a water emulsion comprising a complex mixture of proteins, fats and lecithin. From the specified amount of egg yolk, the opponents calculated that the mayonnaise contained 6.9% lecithin, an emulsifier. In their opinion, the amount of emulsifier was thus comprised within the claimed range.

5.7 The board does not agree. Paragraphs [0003] and [0024] and claims 4 and 5 of the opposed patent make it clear that, within the scope of the claimed invention, egg yolk, as such, is "the emulsifier". This same teaching can be found in the last paragraph on page 3 of D10. Therefore, as asserted by the patent proprietor, the skilled person would not refer to the amount of lecithin in egg yolk to establish the amount of emulsifier in the mayonnaise of comparative example 1. Therefore, the feature "an emulsifier in an amount of

up to 10%" which characterises claim 1 of the patent as granted is not disclosed in D10.

5.8 The viscosity of the mayonnaises disclosed in D10 is not disclosed either. The opponents' assertion that the claimed viscosity is implicitly disclosed because D1 describes the physical properties of the mayonnaise of comparative example 1 as "excellent" is not persuasive. The patent teaches that viscosity is important for the stability (a physical property) of emulsions. However, this does not mean that stability only depends on viscosity. Other factors, such as the manufacturing method, are also likely to play a role.

5.9 For these reasons, the board concludes that the oil-in-water emulsion of claim 1 differs from the mayonnaise disclosed in comparative example 1 of D10 by the claimed amount of surfactant and a viscosity within the claimed range.

The underlying problem

5.10 Starting from the teaching of D10, the underlying problem is the provision of an alternative stable foodstuff in the form of an oil-in-water emulsion comprising a low amount of oil.

5.11 According to the patent, emulsions according to the invention could be prepared and were stable for six months (see the examples). For the reasons mentioned when discussing sufficiency of disclosure, the opponents' argument that not all compositions falling within the scope of claim 1 will be stable and that the underlying problem is not solved over the entire scope is not persuasive.

Non obviousness of the proposed solution

5.12 The board considers that, starting from D10, the skilled person confronted with the underlying problem would not have considered reducing the amount of egg yolk in the mayonnaise of comparative example 1. As noted by the patent proprietor, this is a comparative example. When looking for an alternative, the skilled person would have considered implementing the solutions taught by D10. Accordingly, they would have added a thickener, which is present in all compositions of examples 1 to 6, or increased the content of lysophospholipids in the egg yolk. All compositions according to the invention described in D10 comprise 15% egg yolk. Thus, the skilled person would not have reduced this amount, in particular in the absence of a thickener, let alone with a reasonable expectation of obtaining a stable emulsion. Page 5 mentions a composition comprising lower amounts of yolk, but reference is made to diglyceride compositions, which in all the disclosed examples comprise a thickener.

5.13 According to the opponents, D8, D9 and D19 hinted at the claimed solution, namely providing emulsions containing lower amounts of emulsifier. The board does not agree because:

- D8 does not teach to use low amounts of egg yolk in emulsions comprising an amount of oil in the claimed range
- D9 discloses emulsions comprising low amounts of oil and a low amount of egg yolk as an emulsifier, but corn syrup, which is a thickener, is also present

- D19 discloses emulsions comprising low amounts of oil, but the total amount of surfactant (egg yolk and sodium stearate, see table 1) exceeds 10%

5.14 The opponents also referred to combinations of D10 with D17, D22 and D23. However, these are new attacks based on new facts which could have been raised during the proceedings before the opposition division. Thus, these new attacks are not admitted (Article 12(4) RPBA 2007).

5.15 For these reasons, even without considering the relevance of the second distinguishing technical feature, the viscosity, the board concludes that the subject-matter of claim 1 involves an inventive step starting from D10 as the closest prior art.

5.16 Claim 10 relates to the preparation of the foodstuff defined in claim 1. Thus, for the same reasons, the subject-matter of claim 10 involves an inventive step over D10, considered alone or in combination with D20, which describes an apparatus as defined in that claim.

Relevance of D12

5.17 The opponents have argued that D12 could be considered an alternative starting point for assessing inventive step. D12 was proposed as the closest prior art by the opponent when discussing the main request during the oral proceedings before the opposition division (see page 2 of the minutes) and is mentioned in the appealed decision when inventive step is discussed. It describes physically stabilised products not requiring the presence of stabilisers and/or thickening agents (see column 2 lines 29 to 34).

- 5.18 The opponents drew attention to the mayonnaise-type dressings described in example 3. They conceded that the viscosity of these dressings was not measured at the conditions specified in claim 1: at 50s^{-1} rather than 10s^{-1} as in claim 1. However, they estimated that had it been determined at 10s^{-1} , the viscosity would have fallen within the claimed range.
- 5.19 The board does not agree because this is a mere estimation and not a direct and unambiguous disclosure of the claimed viscosity.
- 5.20 Furthermore, D12 discloses the size of the particles contained in the pre-emulsions used to prepare the dressings. These are not necessarily the sizes of the particles contained in the dressing, the final product.
- 5.21 Thus, two features distinguish the claimed composition from that of D12: the size of the particles and the viscosity.
- 5.22 The board considers that starting from D12 and confronted with the problem of providing an alternative stable mayonnaise-type dressing, the skilled person would not have found in D12 any prompt hinting at the claimed invention. The gist of D12 is to use surfactants inducing the formation of a mesophase; not particles having a given size or achieving a certain viscosity (see columns 2 and 3). Thus, D12 teaches away from the claimed solution. Therefore, even when starting from D12, the claimed invention involves an inventive step.

Further attacks

- 5.23 The opponents also raised attacks starting from D14, D18 and D19 in their reply to the patent proprietor's appeal. However, they have not provided any reason, and the board cannot see any, why any of these documents could qualify better than D10 (or, possibly, D12) as the closest prior art. They actually conceded that "the OD did not err in its decision by indicating D10 as representing the closest prior art". For this reason alone, the attacks based on these documents fail.
- 5.24 For these reasons, the claimed subject-matter involves an inventive step, and the ground for opposition under Article 100(a) EPC in combination with Article 56 EPC does not prejudice the maintenance of the patent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is maintained as granted.

The Registrar:

The Chairman:



A. Nielsen-Hannerup

A. Haderlein

Decision electronically authenticated