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**Datasheet for the decision
of 16 February 2023**

Case Number: T 0086/20 - 3.3.09

Application Number: 12753210.9

Publication Number: 2739163

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A23L29/231, A23L27/10,
A23L23/10

Language of the proceedings: EN

Title of invention:
GELLED FOOD CONCENTRATE

Patent Proprietor:
Premier Foods Group Limited

Opponent:
UNILEVER N.V. / UNILEVER PLC

Headword:
Gelled food concentrate/PREMIER FOODS

Relevant legal provisions:
EPC Art. 56
EPC R. 103(1)(a)
RPBA 2020 Art. 13(2)

Keyword:

Inventive step - main request (no) - auxiliary request (no)
Reimbursement of appeal fee - (no) - appealed decision
sufficiently reasoned (yes)
Amendment after summons - exceptional circumstances (no)

Decisions cited:

T 0075/91, T 1557/07



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Case Number: T 0086/20 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 16 February 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
12 November 2019 concerning maintenance of the
European Patent No. 2739163 in amended form.**

Composition of the Board:

Chairman A. Haderlein
Members: F. Rinaldi
 W. Sekretaruk

Summary of Facts and Submissions

- I. This decision concerns the appeal filed by the opponent (appellant) against the opposition division's interlocutory decision.
- II. With the notice of opposition the opponent requested that the patent be revoked under Article 100(a) EPC for lack of inventive step, among other things.
- III. The documents submitted during the opposition proceedings include:
- D4: EP 2 468 110 A1
 - D10: "Data report - Generated by Premier Foods" (9 November 2018)
 - D14: R. H. Walter (editor), "The Chemistry and Technology of Pectin", 1st edn., Academic Press, 1991, 109-117
 - D15: Unilever - experimental report (July 2019)
 - D16: "Data report 2 - Generated by Premier Foods" (25 July 2019)
 - D17: "Data report 3 - Generated by Premier Foods" (25 July 2019)
- IV. The opposition division decided, among other things, that the second auxiliary request filed at the oral proceedings was allowable.
- V. With the reply to the statement setting out the grounds of appeal, the respondent (patent proprietor) upheld, as its main request, the request which the opposition

division held allowable and filed auxiliary requests 1 and 2.

VI. The following claims are relevant to the decision.

Claim 1 of the main request reads:

"A gelled food concentrate which is free or substantially free of syneresis for at least six months and characterized in that the concentrate contains no ingredients with more than incidental levels of calcium or polyols, but does not skin or re-gel after it has been diluted in aqueous liquid in a ratio of 1:10 to 1:100 (w/v) under the application of heat and subsequently been allowed to cool to room temperature, said concentrate comprising:

- a. 30 - 60% by weight of water*
- b. 5 - 15% by weight of common salt*
- c. 2 - 5% by weight of low methoxy pectin with DE < 50%*
- d. 20 - 64% by weight of taste imparting components;*

wherein the percentage equivalent of sucrose in the concentrate is less than 6%, wherein the concentrate is packaged into consumer ready packaging and wherein the concentrate is gelled such that the consumer can remove it from the packaging in one piece."

Claim 1 of auxiliary request 1 is based on claim 1 of the main request, with several restrictions added, namely that the gelled food concentrate:

- is free or substantially free of syneresis for at least 12 months,
- comprises 40 - 50% by weight of water, and
- comprises 10 - 12% by weight of common salt.

Claim 1 of auxiliary request 2 is based on claim 1 of the main request, with the following feature added after the term "imparting components;":

"wherein the gel comprises low methoxy pectin with DE < 50% which is set by a sodium source such as salt and"

VII. The appellant's arguments, insofar as they are relevant to the present decision, are summarised as follows.

- The respondent's submission filed by letter dated 16 January 2023 regarding the test setup used in D10 and 17 was not to be admitted into the proceedings.
- The subject-matter of claim 1 lacked an inventive step starting from example 2 of D4 as the closest prior art. The patent proprietor's experiments (D10 and D17) did not demonstrate an improvement over the closest prior art. The technical problem was to provide an alternative composition, or at best a higher gel strength. The solution would have been obvious to the skilled person.
- The opposition division's decision lacked reasoning, and this amounted to a procedural violation.

VIII. The respondent's arguments, insofar as they are relevant to the present decision, are summarised as follows.

- The submission regarding the test setup used in D10 and D17 was to be admitted into the proceedings. The submission did not involve new facts because it

concerned the experiments already on file (D10 and D17).

- Starting from example 2 of D4 the technical problem was to provide a gelled food composition with improved properties, namely higher gel strength and no syneresis. The distinguishing feature, i.e. the amount of low-methoxy pectin, was responsible for the improvement, as shown in D10 and D17. The solution set out in claim 1 would not have been obvious to the skilled person.
- The auxiliary requests were likewise allowable. In particular, claim 1 of auxiliary request 1 was further distinguished from the closest prior art by the salt concentration. This was a non-obvious modification.

IX. Final requests

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

Furthermore it requested that the appeal fee be reimbursed.

The respondent requested that the appeal be dismissed (main request), or alternatively, that the patent be maintained on the basis of any one of auxiliary requests 1 or 2, filed with the reply to the statement setting out the grounds of appeal.

Reasons for the Decision

1. *Patent in suit*

1.1 The patent relates to a food concentrate in the form of a gel. The concentrate is used to prepare a stock, soup, sauce or gravy, for example (paragraph [0001]).

1.2 The gelled food concentrate is described as being sufficiently elastic but not too rigid. Due to these characteristics it can be removed from the packaging in one piece, without leaving any residue behind. Furthermore, the gelled concentrate is stated to remain substantially free of syneresis for a shelf life of one year and to dissolve quickly in boiling water (paragraph [0007]).

1.3 A suitably firm gel is disclosed as being obtained with a low-methoxy pectin. Calcium is not added to the concentrate to promote gel formation; however, other ingredients present in the recipe may contain calcium. The amount of calcium brought into the product through such ingredients is defined as being "incidental" (paragraph [0009]).

2. *Admittance of submissions after summons*

2.1 One month before the oral proceedings, which was well after the summons to oral proceedings were notified and the board's communication under Article 15(1) RPBA 2020 was issued, the respondent submitted the following declaration (letter dated 16 January 2023, page 2):

"... the proprietor has sought out the experiments on which their data reports were based and can confirm that sample 1 of D10 and sample 1' of D17 (i.e. the samples corresponding to the proprietor's repeats of example 2 of D4) had calcium ions in the range of 10-100mg Ca-ions/ g of LM pectin, as required by claim 1 of D4."

- 2.2 The appellant requested that this statement not be considered on appeal. With this statement, the respondent provided an allegation of facts that was new to the proceedings regarding the setup used in the tests in D10 and D17.
- 2.3 In the decision under appeal a major issue under dispute was the probative value of the parties' experimental tests. These included D10 and D17, filed by the patent proprietor, and D15, filed by the opponent. All these documents were filed during the opposition proceedings and are discussed in the decision. The experimental tests are relevant for assessing the disclosure of the closest prior art and the effects which the subject-matter of claim 1 potentially achieves over it.
- 2.4 On appeal, a contentious point continued to be whether the composition in the closest prior art (example 2 of D4) was in the form of a gel. This is what example 2 explicitly discloses.
- 2.5 The parties repeated example 2 in their experimental tests. The opponent's experimental results in D15 confirm that the composition is gelled and in addition does not display syneresis. In contrast, the patent proprietor's experimental results in D10 and D17 show

that the composition is a very weak gel and displays syneresis.

- 2.6 Therefore, for assessing the probative value of the experimental evidence, it is relevant how example 2 of D4 was repeated in the parties' experiments.
- 2.7 In the statement setting out the grounds of appeal, the appellant questioned whether, in D10 and D17, the calcium content called for in D4 had been observed. It emphasised several times (statement setting out the grounds of appeal, e.g. pages 52, 60 and 71) that this was key to understanding why its experiments (D15) and the patent proprietor's (D10 and D17) gave different results for the repeats of example 2 of D4.
- 2.8 However, the respondent did not address the calcium content in D10 and D17 in its reply to the statement setting out the grounds of appeal. It was not until one month before the oral proceedings that the respondent made the submission cited above (point 2.1).
- 2.9 The respondent's argument that the submission did not involve new facts because it concerned the setup of experiments already on file is not convincing. While the patent proprietor's technical expert might have been aware of the calcium concentration used in its experiments, the decisive point is that this information was not disclosed to the reader of D10 and D17. Providing this piece of information only after the notification of the summons constitutes the presentation of a new fact of the experimental setup used in D10 and D17.
- 2.10 The respondent did not invoke any exceptional circumstances or give cogent reasons for providing this

factual information only after the notification of the summons.

2.11 Therefore, the board sees no reason to admit this submission, which constitutes a new fact, into the proceedings (Article 13(2) RPBA 2020).

3. *Inventive step - main request*

3.1 In the decision under appeal, the opposition division decided that the subject-matter of claim 1 involved an inventive step. The reasons are summarised as follows.

- The distinguishing feature of claim 1 over the closest prior art, D4, was the higher amount of low-methoxy pectin (2 to 5% by weight). Example 2 of D4 disclosed 1.4% low-methoxy pectin.
- The distinguishing feature had the technical effect of providing a stronger gel which did not display syneresis while maintaining good dispersion characteristics. The patent proprietor's experiments (D10 and D17) supported this conclusion.
- Starting from example 2 of D4, the problem was to provide a composition which resulted in an improved gelled food concentrate.
- The solution would not have been obvious to the skilled person in light of the teaching of D4.

3.2 The appellant contested several aspects of this decision; however, it is agreed that example 2 of D4 is the closest prior art.

3.3 Closest prior art

3.3.1 Like the patent in suit, D4 concerns compositions in the form of a gel for preparing a food product such as a soup or sauce.

3.3.2 D4 discloses that gel formation of low-methoxy pectin is induced by the presence of divalent cations, such as calcium ions. These ions form junction zones between two carboxyl groups of galacturonic acid located on two pectin molecules (paragraph [0006]). Claim 1 of D4 calls for a gelling agent comprising, among other things,

- salt in an amount of 10 to 25% by weight of the total composition,
- low-methoxy pectin in an amount of 0.6 to 7% by weight of the total composition, and
- calcium ions in an amount of 1.0 to 10% by weight of the low-methoxy pectin (i.e. 0.006 to 0.7% by weight of the total composition).

3.3.3 The calcium source may originate from other ingredients in the composition (i.e. flavourings or taste-imparting components). It may also originate from an (inorganic) added source of calcium such as calcium chloride (paragraph [0020]).

3.3.4 The examples in D4 disclose gelled compositions, some of which include an added source of calcium. Example 2 does not include such an (inorganic) added source of calcium.

3.4 Claim 1 differs from example 2 of D4 on account of the amount of low-methoxy pectin.

3.5 A contentious issue was what technical effect the distinguishing feature achieves.

3.6 To address this question, the following needs to be looked at in more detail:

- the teaching on gelation of low-methoxy pectin,
- D15, i.e. the opponent's experimental results filed during the opposition proceedings, and
- D10, D16 and D17, i.e. the patent proprietor's experimental results filed during the opposition proceedings.

3.7 Gelation of low-methoxy pectin

3.7.1 The patent describes that low-methoxy pectins can form gels but require the presence of divalent cations such as calcium to make a gel network (paragraph [0008]); however, according to the invention in the patent, calcium need not be added to the concentrate to promote gel formation. Other ingredients present in the recipe of the food concentrate (i.e. taste-imparting components) may contain "incidental" amounts of calcium, but the gels described do not rely on calcium bonds (paragraphs [0009] and [0013]).

3.7.2 D14 is a chapter from a handbook on pectin in which gelation of low-methoxy pectin is described. It discloses that depending on the amount of calcium ions, low-methoxy pectin compositions can exist as a solution, a gel or a gel with syneresis. Below a critical level of calcium ions, no gel is formed. Above a certain level of calcium ions, syneresis occurs (figure 4). An increase in ionic strength, e.g. due to

sodium chloride, leads to a decrease in the amount of calcium required for gelation (page 116).

3.8 D15

3.8.1 The appellant filed these experimental tests to show, among other things, that the composition in example 2 of D4 provides a gel which does not display syneresis. In addition, the gel dissolves quickly.

3.8.2 The experiment in D15 takes account of the requirements set out in D4, namely that a specific amount of calcium ions has to be observed. The flavourings are selected to provide calcium ions in the range of 10 to 100 mg per gram of low-methoxy pectin, as called for in claim 1 of D4.

3.9 D10, D16 and D17

3.9.1 In the experiments in D10, D16 and D17, the concentration of low-methoxy pectin is modified and the properties of the gels obtained are examined. D10 and D17 include a repeat of example 2 of D4. The experiments are designed to show the properties of the composition of example 2 of D4 and the impact of the distinguishing feature on it, i.e. the effects achieved by the invention.

3.9.2 The results show that the amount of low-methoxy pectin (2 to 5% by weight) is critical for obtaining a gel with a good gel strength and no syneresis. Below this amount (i.e. 1.4% by weight, as in example 2 of D4), a weak gel is obtained that displays syneresis. Generally, gels with a low amount of low-methoxy pectin are easily dispersed.

- 3.9.3 However, the total amount of calcium ions by weight of the low-methoxy pectin is not indicated for any of the experiments in D10, D16 and D17.
- 3.10 Considering all these facts and evidence, the following conclusions are drawn.
- 3.10.1 As shown in D14, a certain amount of divalent cations is required to form a gel with low-methoxy pectin. Sodium chloride leads to a decrease in the amount of calcium needed for gelation.
- 3.10.2 With regard to the content of calcium, the disclosure of D4 is more specific than that of the patent in suit. In D4 a concentration range of calcium ions is a mandatory feature. In line with the teaching of the document (column 4, lines 4 ff), example 2 implicitly contains a calcium concentration within this range.
- 3.10.3 Instead, the patent tolerates or relies on intrinsic ("incidental") levels of calcium but does not quantify them. There is no restriction on the amount of calcium other than it being "incidental", i.e. not deliberately added. The concentration of calcium that claim 1 of the patent allows may be below, within, or possibly even above the range set out in D4, as long as it is "incidental".
- 3.10.4 The amount of calcium ions per amount of low-methoxy pectin is not disclosed for any of the experiments in D10, D16 and D17. In view of this it cannot be concluded that the experiments were performed as taught in D4, i.e. with the required amount of calcium ions per amount of low-methoxy pectin. Therefore, these results are not suitable for demonstrating an improvement over D4.

- 3.10.5 Considering this, it need not be further investigated why the experiments in D15 on the one hand and in D10 and D17 on the other hand give different results for the repeat of example 2 of D4.
- 3.10.6 Taking the experimental results in D10, D16 and D17 together, the respondent did not present a consistent and conclusive set of evidence that supports all the technical effects it alleged.
- 3.10.7 Now, it is uncontestedly common general knowledge that increasing the amount of low-methoxy pectin provides a higher gel strength. On this basis it is accepted that the distinguishing feature achieves the effect of increasing the gel strength; however, the distinguishing feature cannot be seen to have an impact on syneresis. Here, it is recalled that according to D15 the composition in example 2 of D4 does not display syneresis.
- 3.11 Therefore, the only technical problem that is considered to be solved is to provide a gel with an increased gel strength.
- 3.12 The solution to the technical problem is obvious.
- 3.12.1 The skilled person would have known from the common general knowledge that a solution to the technical problem is to increase the amount of low-methoxy pectin.
- 3.12.2 D4 itself suggests using amounts of low-methoxy pectin between 0.6 and 7% (claim 1) or preferably 0.8 to 2.5%, based on the total weight of the composition (claim 2). Therefore, the skilled person would consider increasing

the amount of low-methoxy pectin to the preferred value of 2.5% explicitly suggested in D4.

3.13 In conclusion, the subject-matter of claim 1 of the main request does not involve an inventive step (Article 56 EPC).

4. *Inventive step - auxiliary requests 1 and 2*

4.1 The respondent filed auxiliary requests 1 and 2 with its reply to the statement setting out the grounds of appeal. In claim 1 of both requests, features have been added so as to restrict these claims compared with claim 1 of the main request. In the reply, the amendments are said to have been added to address potential objections of added subject-matter or lack of clarity. From the reply it is not apparent that the amendments would specifically address objections of lack of inventive step.

4.2 Nevertheless, at the oral proceedings before the board the respondent argued that claim 1 of auxiliary request 1 involved an inventive step. The argument was as follows.

- Claim 1 had a further distinguishing feature over example 2 of D4. In claim 1 the salt concentration was 10 to 12%, whereas in example 2 it was 12.6%.
- In its view, the skilled person reading D4 would have been reluctant to modify the salt concentration. The solution involved a non-obvious modification.

4.2.1 However, as set out above in point 3.3.2, claim 1 of D4 discloses a salt concentration of 10 to 25% by weight of the total composition. The skilled person reading D4

would have readily understood that the salt concentration could be varied within this range. The value of 10% is explicitly suggested in D4 and the skilled person would have considered applying this amount of salt.

4.2.2 Therefore, claim 1 of auxiliary request 1 does not involve an inventive step.

4.3 With regard to auxiliary request 2, the respondent did not argue that the added feature made a contribution to inventive step.

4.4 Therefore, the subject-matter of claim 1 of auxiliary requests 1 and 2 does not involve an inventive step either (Article 56 EPC).

5. *Reimbursement of the appeal fees*

5.1 The appellant argued that the opposition division committed several procedural violations and requested that the appeal fee be reimbursed. The appellant presented the following arguments.

- The opposition division's decision on sufficiency of disclosure did not consider the opponent's evidence and lacked reasoning.
- As regards inventive step, the opposition division was incorrect to formulate the problem-solution approach to encompass any amount of calcium ions. In the application as filed the focus was on the absence of calcium ions. Moreover, the decision was logically flawed and failed to assess the opponent's evidence. Reference was made to D15 and to the experiments showing that no syneresis was observed.

- The opposition division gave no reasons why method claims 9 to 12 of the patent, which are not dependent on product claim 1, met the requirements of the EPC.

5.2 A distinction has to be made between the deciding instance's obligation to issue a decision which enables the reader to follow a line of arguments which leads to the decision and the question of whether the reasons are convincing (e.g. T 75/91, point 7 of the Reasons). The latter aspect typically concerns the correctness of a judgment and is not inextricably linked to a procedural violation.

5.3 Reasoning of sufficiency of disclosure

5.3.1 In point II.4.6.6.5 of the decision under appeal, the opposition division stated that although it was faced with contradictory results filed by the parties (D10, D15 and D17), the invention was sufficiently disclosed. The person skilled in the art of food gels would have known that "low methoxy pectins which form gels set by sodium chloride, without the need of calcium ions, exist".

5.3.2 The opposition division did not explain from where it obtained this particular piece of information. It could be that this understanding is based on an incorrect interpretation of D14, page 116, first paragraph. Be that as it may, this assessment in the opposition division's reasoning may be a technical misunderstanding, or possibly even an error of judgement, but it does not involve a procedural violation, let alone a substantial one.

5.3.3 Furthermore, the opposition division explained that, in its view, the skilled person would have been able to produce a gel by performing routine experiments.

5.3.4 Therefore, as regards the assessment of sufficiency of disclosure, no error can be identified which amounts to a substantial procedural violation.

5.4 Reasoning on inventive step

5.4.1 For analysing inventive step, the opposition division first examined the features of the closest prior art and of claim 1 (point II.4.9.1 and 4.9.2). It follows from point II.4.9.3 that the presence or absence of calcium was not considered a distinguishing feature of claim 1.

5.4.2 No error can be identified in this assessment.

5.4.3 Furthermore, the technical problem has to be formulated based on the effects achieved by the distinguishing feature. The opposition division correctly went on to examine this aspect (point II.4.9.4 ff).

5.4.4 To establish the effect, the opposition division consulted the evidence provided, in particular D10 and D17. It explained why, irrespective of some deficiency, the experiments in D10 and D17 were such that it was possible to draw the conclusion that the amount of low-methoxy pectin provided several technical effects (point II.4.9.7).

5.4.5 The opposition division considered the opponent's argument that the problem was not solved over the entire scope because D15 showed that compositions covered by the claim did not form a gel (minutes of the

oral proceedings, point 15.1); however, it found that this aspect had no bearing on inventive step. According to the decision under appeal (point II.4.9.20), this argument related to sufficiency of disclosure and reference was made to the corresponding section of the decision.

- 5.4.6 The board can conclude that the opponent's argument, based on D15, that the problem was not solved over the entire scope is dealt with in the decision under appeal.
- 5.4.7 It is not apparent from the minutes whether the opponent had also argued that D15 showed that no improvement in terms of syneresis was achieved. Even if the opponent did put forward this argument, it seems that it was not an essential argument within its line of reasoning based on D15. Its essential argument was that, in view of D15, a gel could not be formed over the entire scope claimed. As explained above, this argument is dealt with in the impugned decision.
- 5.4.8 In sum, to arrive at the conclusion on the inventive step of claim 1, the opposition division has provided reasoning that demonstrably takes into consideration the opponent's essential arguments.
- 5.5 As an intermediate conclusion, the decision makes it possible to analyse the individual elements within the opposition division's reasoning that form the steps to the conclusion. These elements are such that they can be straightforwardly identified, examined and, if necessary, challenged in a review, on appeal. In other words, the decision is sufficiently detailed and gives the appellant a fair idea of why their submissions were

not considered convincing (T 1557/07, point 2.6 of the Reasons).

5.6 Alleged failure to deal with the subject-matter of claims 9 to 12

5.6.1 The decision does not formally set out why method claims 9 to 12 of the patent are allowable; however, product claim 1 and method claim 9 involve the same combination of features, which the opposition division regarded as involving an inventive step, namely the feature "2 to 5% by weight of low methoxy pectin with DE < 50%".

5.6.2 In view of this, it is readily apparent that what applies to product claim 1 equally applies to method claim 9.

5.6.3 While it may be said that an error occurred in that the opposition division did not formally state that the same conclusions as for claim 1 also applied to claim 9, this is not considered a procedural violation, let alone a substantial one.

5.6.4 Furthermore, in order to render the reimbursement of the appeal fee equitable, a causal link must exist between the alleged procedural violation and the decision by the department of first instance that necessitated the filing of an appeal (Case Law of the Boards of Appeal of the EPO, 10th edition, 2022, Chapter V.A.11.7.1). In the case at hand, the appellant had to file an appeal in view of the opposition division's decision concerning claim 1, with which it disagreed.

5.7 To conclude, the board fails to see an error in the opposition division's handling of the case or in the decision that amounts to a procedural violation, let alone a substantial one.

5.8 It follows from this that the appellant's request for the appeal fee to be reimbursed is not equitable and not allowable (Rule 103(1) (a) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The European patent is revoked.
3. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:



M. Schalow

A. Haderlein

Decision electronically authenticated