

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 5 April 2018**

Case Number: T 2053/13 - 3.3.01

Application Number: 04802157.0

Publication Number: 1711062

IPC: A21D2/00, A21D8/04, C12N1/16

Language of the proceedings: EN

Title of invention:
LIQUID LEAVEN COMPOSITION

Patent Proprietor:
PURATOS N.V.

Opponent:
Lesaffre International

Relevant legal provisions:
EPC Art. 54, 56, 113(1), 114(2)
RPBA Art. 13
EPC R. 103(1) (a)

Keyword:

Novelty - main request (no)

Late-filed auxiliary requests - admitted (yes)

Inventive step - auxiliary requests (no)

Reimbursement of appeal fee - substantial procedural violation
(no)

Decisions cited:

T 0081/14, G 0004/92



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 2053/13 - 3.3.01

D E C I S I O N
of Technical Board of Appeal 3.3.01
of 5 April 2018

Appellant: Lesaffre International
(Opponent) 137 rue Gabriel Péri
59700 Marcq-en-Baroeul (FR)

Representative: Bandpay & Greuter
30, rue Notre-Dame des Victoires
75002 Paris (FR)

Respondent: PURATOS N.V.
(Patent Proprietor) Industrialaan 25
1702 Groot-Bijgaarden (BE)

Representative: Desaix, Anne
Ernest Gutmann - Yves Plasseraud S.A.S.
66, rue de la Chaussée d'Antin
75009 Paris (FR)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
16 July 2013 concerning maintenance of the
European Patent No. 1711062 in amended form.**

Composition of the Board:

Chairman A. Lindner
Members: R. Hauss
M. Blasi

Summary of Facts and Submissions

- I. European patent No. 1 711 062 was granted with seventeen claims.
- II. The patent was opposed under Article 100(a), (b) and (c) EPC on the grounds that the claimed subject-matter lacked novelty and inventive step, was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, and extended beyond the content of the application as filed.
- III. The documents cited in the opposition proceedings included the following:
- D1:** EP 0 953 288 A1 (claiming priority from D2)
 - D2:** FR 2 777 424 A1
 - D3:** WO 03/048 342 A2
 - D10:** H. de Roissart, F.M. Luquet; Bactéries Lactiques; vol. 1, 239-243, 276-284; Loriga, Uriage (1994)
 - D11:** M.J. Waites et al.; Industrial Microbiology: An Introduction; 46-67, 218-219; Blackwell Science Ltd., Oxford (2001)
 - D12:** Food Hydrocolloids 15, 75-81 (2001)
- IV. The decision under appeal is the interlocutory decision of the opposition division announced on 19 June 2013 and posted on 16 July 2013, rejecting the patent proprietor's main request for rejection of the opposition and finding that the patent as amended in the form of auxiliary request 1 (as filed during oral proceedings on 19 June 2013) met the requirements of the EPC.

V. Independent claims 1 and 14 of the request deemed allowable by the opposition division read as follows:

"1. A process for stabilizing a liquid leaven composition comprising the steps of admixing, in a liquid formulation, at least:

- a flavour improvement composition that comprises at least one of the following:

- A sourdough, a sourdough product, a sponge, or a sponge product, wherein the flour contained in said flavour improvement composition is hydrolysed prior to a fermentation step to liberate fermentable sugars out of the starch, these liberated sugars being eliminated by a microbial fermentation step;

- A supernatant of a sourdough, of a sourdough product, of a sponge or of a sponge product;

- a bread improver composition; and

- an active yeast;

wherein the residual sugar level of the liquid leaven composition is below 0.5% W/W on [sic] said liquid composition.

14. A liquid leaven composition obtainable by a method according to any of claims 1 to 13."

VI. In the decision under appeal, the opposition division ruled as follows:

- The claims of the opposed patent in their granted version (main request) contained subject-matter extending beyond the content of the application as filed (Articles 100(c) and 123(2) EPC).

- Auxiliary request 1 was found to meet the requirements of the EPC. In that context:

- The subject-matter of the independent claims was novel over the disclosure of, *inter alia*, documents D1/D2 (Article 54(2) EPC).

- D1 and D2, which had the same relevant content, represented the closest prior art. The alternative use, proposed by the opponent, of document D3 as a starting point for the assessment of inventive step was not admitted, since that approach constituted a late-filed fact, the opponent could have presented it at an earlier occasion rather than only on the day of the oral proceedings before the opposition division, and document D3 was not *prima facie* a more promising starting point than documents D1/D2 (Article 114(2) EPC).

- Starting from the teaching of document D2, the objective technical problem was the provision of an alternative process for producing a stable liquid leaven composition. The solution to that problem, which involved using a specific flavour component as defined in claim 1 of auxiliary request 1, was not suggested in the available prior art (Article 56 EPC).

VII. The opponent (appellant) lodged an appeal against that decision.

VIII. With its reply to the statement setting out the grounds of appeal, dated 3 January 2017, the patent proprietor (respondent) requested that the appeal be dismissed and the patent be maintained on the basis of former auxiliary request 1 (henceforth the **main request**; see point V above for the wording of independent claims 1 and 14). The respondent further submitted three amended sets of claims as auxiliary requests I, II and III.

IX. In a communication issued in preparation for oral proceedings and advising the parties of its preliminary opinion, the board commented, *inter alia*, on the scope of the definition of the flavour improvement composition and the scope of the independent product claim (see section 5 of the board's communication dated 14 March 2018).

X. With a letter dated 23 March 2018, the respondent submitted a further set of claims as auxiliary request I BIS.

XI. Oral proceedings before the board were held on 5 April 2018. The respondent withdrew auxiliary requests I, I BIS, II and III and filed two amended sets of claims as new auxiliary requests 1 and 2.

The sole independent claim of **auxiliary request 1** is identical to claim 1 of the main request (see points V and VIII above).

The sole independent claim of **auxiliary request 2** corresponds to claim 1 of the main request and auxiliary request 1, except that the definition of the flavour improvement composition was amended to read as follows:

"- a flavour improvement composition that comprises at least one of the following:

- A sourdough, a sourdough product, wherein the flour contained in said flavour improvement composition is hydrolysed prior to a fermentation step to liberate fermentable sugars out of the starch, these liberated sugars being eliminated by a microbial fermentation step;"

XII. The appellant's case may be summarised as follows:

Claim analysis

The process defined in claim 1 of the main request involved only one mandatory process step of mixing three specified components (namely the flavour improvement composition, the bread improver composition and the active yeast) to produce a liquid leaven composition with a low residual sugar content.

It could not be inferred from the wording of claim 1 that the bread improver must be present in the liquid leaven composition above a certain concentration level.

In one of its alternative embodiments, the mandatory component of the flavour improvement composition was defined by its process of preparation, which involved the hydrolysis of flour followed by a microbial fermentation step eliminating the fermentable sugars liberated in the hydrolysis step. That sequence of steps was not part of the process of claim 1, but must be considered as a "product-by-process"-type definition of the component. That reading of the claim was in conformity with the established case law of the Boards of Appeal of the EPO, as set out in decision T 81/14.

Novelty in relation to document D1

Document D1 described a process for preparing a storage-stable, ready-to-use baker's leaven, according to which a liquid dough containing flour and amylases was seeded with strains of lactic acid bacteria and yeast (previously multiplied in separate cultures), and fermented until consumption of all fermentable sugars. The liquid leaven prepared according to document D1 (see paragraphs [0080] to [0091]; example 1) had the required low sugar level and included both active yeast

and sourdough flavour components generated by the microorganisms present. Advantageously, it also included xanthan gum, which was known in the art (e.g. from document D12) as a bread improver.

Due to its very broad scope, the definition of the flavour composition relating to a component obtainable by sequential hydrolysis and fermentation steps failed to establish any characteristic technical feature which might distinguish the liquid leaven composition of claim 14 (obtainable by the process of claim 1) from the composition disclosed in document D1. Moreover, the fermented composition of document D1 also included a supernatant in conformity with the second alternative given in the main request for the mandatory component of the flavour improvement composition.

Hence, the subject-matter of claim 14 of the main request, directed to a liquid leaven composition obtainable by the process of claim 1, lacked novelty over the disclosure of document D1.

The process according to claim 1 of the main request (identical to claim 1 of auxiliary request 1) also lacked novelty, as the sole process step of mixing the three mandatory components was anticipated by document D1 in several ways:

- D1 disclosed admixing, in a liquid formulation, a culture of lactic acid bacteria with active yeast and xanthan gum (D1: paragraphs [0066] and [0083]). In the context provided in D1, it was clear that the strains of lactic acid bacteria and active yeast were admixed as separate components (D1: paragraphs [0062], [0073], [0074] and [0085]). Due to its typical components such as ethanol, acetic acid and lactic acid, the culture of lactic

acid bacteria must be regarded as a flavour improvement composition according to claim 1.

- According to example 2 (table II) of document D1, the liquid composition obtained according to example 1 of document D1, comprising a fermented sourdough flavour composition and a bread improver (xanthan gum), was mixed with further active yeast and other components not affecting the sugar level.

- Document D1 (in paragraph [0065]) also described an embodiment which involved removing the liquid fraction containing the flavour components and, after a concentration step, adding that supernatant again to the composition containing active yeast.

Admission of auxiliary requests 1 and 2

New auxiliary requests 1 and 2, both filed by the respondent at a very late stage, should not be admitted into the proceedings. Auxiliary request 1, which contained only process claims, should have been filed earlier, since the respondent had been well aware of the objections against the independent product claim. Auxiliary request 2 was a modified version of auxiliary request I BIS (also late-filed), and *prima facie* did not overcome the outstanding objection concerning the lack of inventive step.

Inventive step

Starting from the technical teaching of document D1, the objective technical problem to be solved was the provision of an alternative process for preparing a liquid leaven composition. Carrying out a process step of admixing an active yeast in a liquid formulation, as required in claim 1 of auxiliary request 1 and of the main request, was an obvious process modification which

would readily have occurred to the person skilled in the art in view of the general teaching of D1 alone, or in combination with the teaching of document D3, which related to liquid yeast compositions. These arguments and conclusions applied equally to the process according to claim 1 of auxiliary request 2.

Procedural violation and reimbursement of the appeal fee

The opposition division had erred in concluding that the opponent's approach using document D3 as the starting point for the assessment of inventive step was a new fact rather than a new argument. Hence, the opposition division had not had a discretionary power pursuant to Article 114(2) and Rule 116(1) EPC and had been wrong in not admitting it. According to established case law, new arguments could be made at any stage in the proceedings.

Since the opposition division incorrectly considered the new argument presented by the opponent as a late-filed new fact, the discussion of inventive step starting from the disclosure of document D3 had been limited to a discussion of *prima facie* relevance, which did not allow the opponent to present its reasoning based on document D3 in sufficient detail. Hence, the opponent's right to be heard had not been respected (Article 113(1) EPC). Since this constituted a substantial procedural violation, the requested reimbursement of the appeal fee was equitable.

Even assuming that the inventive-step objection starting from document D3 must be regarded as a new fact and that the opposition division had therefore had the discretionary power to refuse its admission, that power had nevertheless been exercised in

an unreasonable manner. Document D3 had been filed in due time with the notice of opposition, and had been regarded as the closest prior art during the pre-grant proceedings before the EPO. Thus, the patent proprietor and the opposition division could not have been taken by surprise by the presentation of an inventive-step assessment based on document D3 as the closest prior art. In response to the opposition division's findings, it had been legitimate for the opponent to introduce an alternative approach in support of its position. The reasons given by the opposition division for attributing a lack of *prima facie* relevance to document D3 and to consider it less pertinent than document D1 were not correct. Moreover, a pre-selection according to relevance was inappropriate, since it was necessary that an invention be assessed relative to all possible starting points before a decision confirming inventive step could be taken.

XIII. The respondent's case may be summarised as follows:

Claim analysis

The classification as a "product-by-process"-type definition could only apply to entire claims, and only when such claims were directed to a product. There was no basis in the EPC, the established practice at the EPO or the case law of the Boards of Appeal to apply it to a feature in a claim, be it a claim for a process or for a product.

The expression "bread improver" implied that at least one component must actually be intended for such a purpose, and that it must be present in the liquid leaven composition in a concentration sufficient for producing a corresponding effect.

Novelty in relation to document D1

The subject-matter of both claims 1 and 14 of the main request differed from the disclosure of document D1, for the following reasons:

Document D1 did not disclose a process which involved admixing the three mandatory components listed in claim 1 in a liquid formulation.

The liquid leaven composition described in document D1 did not contain active yeast within the meaning of claim 1 of the main request, since the yeast which was present according to D1 had been cultured in contact with flour.

Furthermore, the process and liquid leaven composition disclosed in document D1 lacked a "bread improver" component. Xanthan gum could not be regarded as a bread improver, since according to D1 it was used for a different purpose (namely, for stabilising the liquid leaven composition) and was anyway not present at a concentration sufficient to affect bread quality. Typically, a level of 0.5% of xanthan gum, based on the weight of the flour, would be required for that purpose in a dough ready for baking (D12: abstract and page 76: section 2.2.3). Document D1 disclosed a concentration of 0.3% of xanthan gum in the liquid leaven composition, which was subsequently incorporated into a dough at a ratio of 15 kg to 100 kg of flour (D1: examples 1 and 2), resulting in a proportion of xanthan gum in the dough much lower than that disclosed in document D12.

Furthermore, document D1 related to a process which involved concomitant, rather than successive, steps of starch hydrolysis and fermentation. Due to different metabolic pathways, the composition of the product

resulting from a fermentation process would be different depending on whether simple sugars such as glucose were only produced gradually by starch hydrolysis while the fermentation progressed (as in the process of document D1), or were available as from the beginning of the fermentation (as was the case for the first embodiment of the flavour improvement composition of claim 1, obtained by sequential steps of starch hydrolysis and fermentation). The difference concerned the nature and quantity of both the final biomass and the specific metabolites produced in the fermentation medium. In support of that argument, reference was made to documents D10 and D11.

Admission of the auxiliary requests

New auxiliary requests 1 and 2 involved only straightforward amendments of existing auxiliary requests, in reaction to the board's conclusions, and did not change the basis of the discussion.

Inventive step

Document D1 provided no incentive to the person skilled in the art for adopting a process which involved adding active yeast into a liquid formulation to obtain a liquid premix leaven composition, rather than admixing the active yeast directly with the dough to be baked.

Rather, the person skilled in the art would have been deterred by possible detrimental effects, as it was to be expected that the fermented composition prepared according to the process of document D1 would be destabilised by the addition of yeast, and that the yeast might interact unfavourably with metabolites resulting from the fermentation step. In that context, reference was made to paragraph [0059] of D1.

Hence, the process defined in claim 1 of auxiliary request 1 and of the main request was a non-obvious alternative and therefore inventive. The same reasoning applied with regard to the process defined in claim 1 of auxiliary request 2.

- XIV. The appellant requested that the decision under appeal be set aside and that the patent be revoked in its entirety. Additionally, the appellant requested the reimbursement of the appeal fee pursuant to Rule 103(1)(a) EPC by reason of a substantial procedural violation committed by the opposition division.
- XV. The respondent requested that the appeal be dismissed or, in the alternative, that the patent be maintained in amended form on the basis of one of the sets of claims filed as new auxiliary requests 1 and 2 at the oral proceedings before the board.

Reasons for the Decision

1. Main request - analysis of claims 1 and 14

Claim 1

- 1.1 The process defined in claim 1 of the main request mandatorily involves a step of admixing, in a liquid formulation, at least the following three components: a specific "flavour improvement composition", a "bread improver composition" and an active yeast, resulting in a liquid leaven composition with a residual sugar level below 0.5% by weight.

Irrespective of the wording chosen in claim 1 - "a process for stabilizing a liquid leaven composition" - the board takes the view that the technical features

of the claim effectively define a process of preparing a liquid leaven composition which has a sugar level below 0.5% and contains certain mandatory components.

According to the patent in suit (paragraph [0020]), the presence of fermentable sugars above a certain residual level would be detrimental to the stability of the composition. The aspect of stabilisation by limitation of the sugar content did not however play a part in the discussions pertinent to the outcome of the present decision.

1.2 Leaven composition

A leaven composition as commonly understood by a person skilled in the art is a composition which is suitable for use as a leavening agent in a dough or batter. The leavening agent (or raising agent) causes a foaming action that lightens and softens the mixture. Active yeast, which is mandatory according to claim 1, is a component known to provide leavening (see point 1.3 below). Thus, the term "leaven composition" does not imply the mandatory presence of further components.

1.3 Active yeast

According to the term "an active yeast" employed in claim 1, the yeast is not restricted by any other requirement but that it is active, which would commonly be understood to mean "metabolically active" (and in particular able to ferment sugar and produce carbon dioxide, i.e. leavening). Contrary to the respondent's interpretation, the claim does not contain any limitation excluding yeast which was cultured in contact with flour from the scope of "active yeast".

1.4 Bread improver composition

1.4.1 According to the patent in suit (see paragraph [0058]), "bread improvement" relates to the improvement of dough handling properties and/or of the quality of the final baked product. The bread improver composition may, for instance, comprise conventional chemical additives or enzymes commonly known to improve such properties.

1.4.2 In the context of claim 1, the functional term "bread improver composition" translates into the requirement that such a composition must contain at least one substance which is functionally suitable for improving dough handling properties and/or the quality of the final baked product. In this, it is not relevant whether such a compound might also be suitable for other purposes.

1.4.3 The definition of claim 1 does not contain any explicit requirement regarding the concentration of the bread improver.

The respondent contended that it was nevertheless implicit that the bread improver substance(s) must at least be present in the liquid leaven composition at a minimum concentration which would provide bread-improving properties during further processing steps relating to the envisaged use of the leaven composition for baking.

However, claim 1 does not contain any technical features relating to the further use of the leaven composition, such as the ratio in which it should be added to a dough to be leavened, or restrictions with regard to further components (including additional bread improver) which might be employed in such a dough mixture.

Thus, the board considers that it is not possible to derive from the definition of claim 1 any implicit requirement relating to a minimum concentration of "bread improver" substance(s) in the liquid leaven composition, or for that matter, in an undefined hypothetical dough mixture incorporating the leaven composition prepared according to claim 1.

1.5 Flavour improvement composition

1.5.1 The flavour improvement composition of claim 1 is defined by the requirement that it comprises at least one specified mandatory component.

1.5.2 In accordance with that "open" definition, the flavour improvement composition may comprise further components other than the mandatory component.

1.5.3 Claim 1 defines two alternative options for the mandatory component:

(i) According to one option, the flavour improvement composition comprises at least "a sourdough, a sourdough product, a sponge, or a sponge product, wherein the flour contained in said flavour improvement composition is hydrolysed prior to a fermentation step to liberate fermentable sugars out of the starch, these liberated sugars being eliminated by a microbial fermentation step".

(ii) According to the other option, the flavour improvement composition comprises at least a "supernatant of a sourdough, of a sourdough product, of a sponge or of a sponge product".

1.5.4 Option (ii) is covered by a flavour improvement composition which contains a sourdough or sponge, in particular if used in liquid form, since such a composition comprises both the supernatant and, as an

optional component not ruled out by the wording of claim 1, the solids of the sourdough or sponge.

- 1.5.5 It was disputed among the parties whether the process steps of option (i) relating to starch hydrolysis carried out prior to a fermentation step were to be regarded as steps of the process of claim 1.

The board takes the view that the wording of claim 1 does not present the features relating to hydrolysis prior to fermentation as integral steps of the process for stabilising a liquid leaven composition, but rather as technical features defining the at least one mandatory component of the flavour improvement composition. Had the respondent intended the hydrolysis and fermentation steps to be part of the claimed process, it could have drafted the claim accordingly in different terms.

Contrary to the respondent's line of argument, and as set out in decision T 81/14 (reasons 3.2 to 3.7), when considering the definition of a product in terms of its production process, the principles developed in the jurisprudence for "product-by-process claims" are to be applied generally and in a consistent manner - also, as in the case decided in T 81/14, if such a definition appears in a claim directed to the use of that product, or, as in the present case, a claim directed to a process using the product (namely using it for preparing a mixture).

What matters is that the mandatory component of the flavour improvement composition according to option (i) is a product which is defined in terms of technical features relating to its manufacture. It would be inconsistent, and therefore inappropriate, to make the principles underlying the interpretation of such a

definition dependent on the category of the claim in which that definition appears.

The board concludes, accordingly, that the sequential implementation of the two steps of hydrolysis and fermentation is not a technical feature of the process of claim 1. Rather, the features relating to hydrolysis prior to fermentation are product-by-process-type technical features which can define the mandatory component of the flavour improvement composition and the flavour improvement composition itself only inasmuch as these manufacturing steps would inevitably result in certain properties or technical features of said component and composition.

Claim 14

- 1.6 Independent claim 14 is directed to a liquid leaven composition obtainable by the process of claim 1.
- 1.6.1 Since this is a "product-by-process"-type definition which defines the liquid leaven composition indirectly by its process of preparation, it must be established what the technical features are which would invariably result from that process of preparation, in order to know the mandatory technical features of the claimed composition.
- 1.6.2 In the light of the board's analysis of the terms of claim 1 set out above, the product defined in claim 14 has the following mandatory technical features:
 - (a) it is liquid;
 - (b) it has a sugar level below 0.5% by weight;
 - (c) it is suitable for use as a leavening agent in a dough or batter, as set out in point 1.2 above;
 - (d) it contains active yeast, as set out in point 1.3 above;

- (e) it contains at least one substance which is functionally suitable as a "bread improver", as set out in points 1.4.1 to 1.4.2 above;
- (f) it contains at least one component according to option (i) or (ii), as set out in point 1.5.3 above.

- 2. Main request - novelty of claim 14 (Articles 100(a), 52(1) and 54(2) EPC)
- 2.1 Document D1 relates to a process for preparing a storage-stable ready-to-use baker's leaven. The process of D1 (see D1: claim 11) involves adding at least one strain of heterofermentative lactic acid bacteria and preferably at least one strain of yeast to a liquid dough prepared from grain flour and water which contains amylases sufficient for the degradation of the totality of the degradable starch into maltose and glucose, and fermenting the thus obtained dough or leaven until consumption of all fermentable sugars.
- 2.2 According to example 1 of D1 (see paragraphs [0109] to [0111]), a liquid composition is prepared in that manner which contains 15% dry matter, an active yeast (namely 1×10^7 CFU of *Saccharomyces cerevisiae chevalieri*) and at most 0.1% by weight fermentable sugar, and which may be stabilised with about 0.3% of xanthan gum. The composition remained stable during some weeks' storage at 4°C (see D1: paragraphs [0112] to [0113], table I).
- 2.3 As set out in point 1.6.2 above, the board identified six technical features (a) to (f) as mandatory features of the composition of claim 14.
- 2.4 The composition prepared according to example 1 of D1 is a liquid leaven which contains active yeast, thus

anticipating features (a), (c) and (d). It was, furthermore, common ground between the parties that the technical feature specifying a residual sugar level of the leaven composition below 0.5% by weight did not distinguish the claimed composition from the disclosure of document D1 in respect of feature (b).

2.5 In the embodiment of example 1 which employs xanthan gum (see D1: paragraph [0111]), the leaven composition prepared according to example 1 of document D1 also anticipates mandatory feature (e): According to document D12 (see page 80, "Conclusion"), xanthan gum is able to modify the rheological properties of wheat flour doughs, yielding strengthened doughs, and may be used as an additive when long fermentation processes are desirable. Hence, xanthan gum falls into the functional category of bread improvers (see points 1.4.1 and 1.4.2 above).

2.6 The following considerations are relevant with regard to feature (f) (see point 1.5.3/option (i) above):

2.6.1 Making reference to the teaching of documents D10 and D11 (page 219), the respondent argued that, due to different metabolic pathways, the composition of a flavour component obtainable by sequential hydrolysis and fermentation steps (as defined in claim 14 by back-reference to claim 1) would inevitably differ from one produced by concomitant hydrolysis and fermentation (as described in example 1 of document D1). The metabolic pathway would depend on whether simple sugars such as glucose were available right from the start or were only produced gradually by hydrolysis while the fermentation progressed. The difference in the respective fermentation products concerned both the nature and the quantity of the final biomass and the

nature and the quantity of the metabolites produced in the fermentation medium.

2.6.2 While it may well be the case that different ingredient profiles may be obtained when identical compositions are hydrolysed and fermented in different ways, the board considers, however, that the definitions of the flavour improvement composition and of the liquid leaven composition according to claim 1 do not translate into a distinctive mandatory ingredient profile.

- Firstly, claim 1 does not restrict the choice of microorganisms or conditions for culture which may be employed in the fermentation step. In the absence of specific information about such relevant parameters and considering the broad scope for variation in that regard, it is not possible to identify a characteristic ingredient profile which would inevitably result from any process involving sequential hydrolysis and fermentation steps, as opposed to the process of D1 involving concomitant hydrolysis and fermentation.

- Secondly, the flavour improvement composition is defined, in claim 1, in that it "comprises at least one" mandatory component according to option (i) or (ii). This "open" definition does not rule out the possibility that further components may, in any proportion, be present in the flavour improvement composition. Moreover, the process of claim 1 in which the liquid leaven composition is prepared comprises admixing "at least" three explicitly named components (flavour improvement composition, bread improver composition and active yeast) while, again, not ruling out the presence of further components.

- It is thus impossible to identify any specific mandatory feature which would - irrespective of the

specific microorganisms and process conditions chosen for the fermentation step and even after the addition of an unlimited variety and quantity of further components - inevitably characterise the leaven composition according to claim 14 and distinguish it from the composition according to example 1 of D1.

2.6.3 For these reasons, the board arrives at the conclusion that the "hydrolysis/fermentation" option for the mandatory component of the flavour improvement composition (see point 1.5.3 option (i) above) is anticipated by example 1 of D1.

2.6.4 Since feature (f) is therefore anticipated in example 1 of document D1 in the form of a component according to option (i), it is not necessary at this point to address the alternative "supernatant" option (ii) of feature (f).

2.7 Since, for these reasons, the liquid leaven composition according to example 1 of D1 anticipates the combination of features (a) to (f) as set out in point 1.6.2 above, the board concludes that the subject-matter of claim 14 lacks novelty.

3. Admission of auxiliary requests 1 and 2

3.1 The claims of new auxiliary request 1 are identical to those of the main request, except that independent claims 14 and 15 relating to the liquid leaven composition and its use in the preparation of a bakery product were deleted. The deletion of those claims does not give rise to any new issues.

3.2 Much in the same way, the claims of new auxiliary request 2 are identical to those of former auxiliary request I BIS, except for the deletion of the independent claims relating to the liquid leaven

composition and its use. Auxiliary request I BIS in its turn, which restricts the options for selecting the mandatory component of the flavour improvement composition, was submitted by the respondent in advance of the oral proceedings (see the letter of 23 March 2018, page 1, paragraph 4).

3.3 Thus, the amendments were aimed at limiting the claimed subject-matter (see point XI above for the wording of claim 1) so as to focus the discussion on the independent process claim and certain embodiments of the flavour improvement composition. Neither the deletion of independent claims nor the deletion of certain options in the definition of the process claim gives rise to new issues which might have taken the appellant or the board by surprise.

3.4 For these reasons, the board, exercising its discretion pursuant to Article 114(2) EPC and Article 13(1) RPBA, decided to admit auxiliary requests 1 and 2 into the proceedings.

4. Auxiliary request 1 - novelty (Articles 100(a), 52(1) and 54(2) EPC)

4.1 The combination of technical features (a) to (f) which was considered in the assessment of product-by-process claim 14 of the main request is also mandatory as far as the subject-matter of independent process claim 1 (which is identical in the main request and auxiliary request 1) is concerned. As already established (see point 2.7 above), example 1 of document D1 discloses features (a) to (f) in combination.

4.2 In addition, for assessing the novelty of the process of claim 1, the single process step defined in that claim has to be taken into account, namely admixing,

in a liquid formulation, at least the specified flavour improvement composition, a bread improver composition and an active yeast.

As explained above (see points 1.5.5 and 2.6), the sequential steps of hydrolysis and fermentation are not part of the process according to claim 1, nor do they give rise to a distinctive feature or property of the liquid leaven composition.

- 4.3 Novelty assessment in the context of examples 1 and 2 of document D1
- 4.3.1 According to example 1 of D1, a fermentation step including both yeast and lactic acid bacteria is carried out. Thus, the yeast is already present when flavour components are generated *in situ* by the fermentation process, which is not the same as admixing yeast and a flavour improvement composition. The board is not convinced by the appellant's argument that the cultured strain of heterofermentative lactic acid bacteria employed according to document D1 (see paragraphs [0083] or [0099] to [0101]) as such must necessarily meet the definition of a flavour improvement composition according to present claim 1. In any case, the xanthan gum (regarded as a bread improver) is not mixed with this bacteria culture but is added to the final leaven composition, which is obtained only after hydrolysis and fermentation (see paragraph [0111]).
- 4.3.2 According to example 2 of D1 (paragraphs [0114] to [0116]), also invoked by the appellant, a liquid leaven composition according to example 1 is mixed with flour, water, salt and pressed yeast (i.e. further active yeast) to prepare a dough which is to be baked. Since D1 does not disclose that the admixing takes place in a

liquid formulation, and the resulting mixture is a dough and not a liquid leaven composition, the disclosure of example 2 cannot anticipate the process defined in claim 1.

4.4 Novelty assessment in the context of passages in the general description of document D1:

4.4.1 The appellant furthermore made reference to paragraphs [0073] and [0074] of document D1, where it is mentioned that, optionally, excess fructose may be added to the initial mixture to be pre-fermented by the heterofermentative bacteria, preferably in the absence of yeast. Since this passage is part of the general description of document D1, it is not associated, however, with the mandatory subsequent addition of active yeast and xanthan gum (features (d) and (e) as set out in point 1.6.2 above), both being optional ingredients according to the general teaching of D1.

4.4.2 In paragraph [0065] of D1, also invoked by the appellant, it is mentioned that a liquid fraction is removed and concentrated, and the aroma substances are fed again into the process. The appellant regarded that concentrated fraction as a supernatant according to option (ii) of the mandatory flavour component. However, it remains undisclosed at what stage of the process the liquid fraction is removed, concentrated and fed back. Neither the presence of yeast nor the presence of xanthan gum (features (d) and (e) as set out in point 1.6.2 above) is mandatory in the context of paragraph [0065], which is not part of the description of example 1. A twofold selection would thus be required to combine these features with the "feedback" process step described in paragraph [0065].

4.5 For these reasons, the board considers that document D1 does not disclose admixing active yeast in a liquid formulation with a bread improver composition and flavour improvement composition as defined in claim 1, and therefore the process according to claim 1 of auxiliary request 1 is not anticipated by the disclosure of document D1.

5. Auxiliary request 1 - inventive step (Articles 100(a), 52(1) and 56 EPC)

Patent in suit

5.1 It is acknowledged in the patent in suit (see paragraphs [0009] to [0011]) that liquid ready-to-use compositions containing active yeast or bread-improving additives and liquid sourdough compositions were known as supply products for bakery purposes; for example, document D3 relates to liquid yeast compositions. The patent in suit pursues the idea of combining several such components and additives in a storable liquid product in order to facilitate the preparation of doughs. Liquid products provide advantages such as accurate dosing and easy cleaning of production systems.

5.2 Claim 1 of auxiliary request 1 is identical to claim 1 of the main request (see point XI above) and defines a process of admixing active yeast, a bread improver composition and a flavour improvement composition, resulting in the desired liquid combination product which is a liquid leaven composition.

Starting point in the prior art

5.3 It was common ground that document D1, relating to a process for preparing a storage-stable ready-to use

baker's leaven (see section 2.1 above), was a suitable starting point for the assessment of inventive step.

Technical problem and solution

- 5.4 According to example 1 of D1, a fermentation step involving both yeast and lactic acid bacteria is carried out, eliminating sugars liberated by starch hydrolysis. The resulting fermented composition (see paragraph [0110]) meets the definition of the flavour improvement composition according to present claim 1 (see point 2.6 above). In one embodiment, a bread improver (xanthan gum, see section 1.4 above) is added to that composition (see D1: paragraph [0111]). The composition already contains active yeast, namely the yeast which was involved in the fermentation step (see D1: paragraphs [0104] to [0107]). Thus, the liquid composition prepared according to example 1 of D1 meets the definition of the liquid leaven obtainable according to the process defined in present claim 1.
- 5.5 As set out in points 4.2 and 4.3 above, the subject-matter of claim 1 differs from the disclosure of example 1 of document D1 in the process step of admixing active yeast in a liquid formulation with the other mandatory components of the liquid leaven composition (i.e. the flavour improvement composition and bread improver composition of claim 1).
- 5.6 The further addition of active yeast after the fermentation step of D1 is another process step, resulting in a somewhat higher ratio of active yeast to the other components. It would appear that no particular technical effect is associated with such a measure. Since claim 1 does not define a minimum concentration for the active yeast in the liquid leaven composition, it is not necessarily implied that doughs

can be prepared with the liquid leaven composition without the separate addition of active yeast (as in example 2 of D1).

5.7 Thus, the objective technical problem is to provide an alternative process for preparing a storable liquid leaven composition comprising active yeast, bread improver and flavour components.

5.8 The solution to that problem consists in the process according to claim 1.

Obviousness of the solution

5.9 The board is not aware of any reason which would prevent or discourage the person skilled in the art from adding active yeast to the liquid leaven composition according to example 1 of D1.

- Since the composition according to example 1 of D1 contains at most 0.1% of fermentable sugars, it would not be expected to destabilise upon addition of more yeast.

- The respondent's argument that the person skilled in the art would fear that the yeasts might be stressed by metabolites from the preceding fermentation is rather speculative. According to the teaching of document D1 (see paragraph [0059]), strains of lactic acid bacteria and yeasts are to be selected in such a way as to allow industrial multiplication and to be as resistant as possible to the stress created by the metabolites they produce, and many strains corresponding to these characteristics have been described and/or can be found in public collection centres. Hence, it is clear from the teaching of document D1 itself that suitable strains of yeast which will not be negatively affected by metabolites should be chosen and are available.

- 5.10 As a consequence, the subject-matter of claim 1 of auxiliary request 1 does not involve an inventive step within the meaning of Article 56 EPC.
6. Auxiliary request 2 - inventive step (Articles 100(a), 52(1) and 56 EPC)
- 6.1 The inventive-step assessment presented in section 5 above with regard to claim 1 of auxiliary request 1 applies equally to claim 1 of auxiliary request 2, which does not contain any additional technical feature distinguishing the claimed subject-matter from the teaching of document D1 (see point XI above).
- 6.2 As a consequence, the subject-matter of claim 1 of auxiliary request 2 does not involve an inventive step within the meaning of Article 56 EPC, for the same reasons as stated with respect to the corresponding claim of auxiliary request 1.
7. Procedural violation and reimbursement of the appeal fee (Articles 113(1) and 114(2) and Rule 103(1)(a) EPC)
- 7.1 The appellant contended that the opposition division committed a substantial procedural violation in not admitting the appellant's (then the opponent's) submission objecting to lack of inventive step on the basis of an assessment starting from the teaching of document D3. In the appellant's view, since that submission was a new argument rather than a new fact, the opposition division had not had the discretionary power pursuant to Article 114(2) and Rule 116(1) EPC to refuse its admission into the proceedings. Even assuming the opposition division had disposed of such discretionary power, it must be concluded that it had exercised that power in an unreasonable manner.

- 7.2 The board does not reach the same conclusions, for the following reasons:
- 7.2.1 While document D3 itself was filed with the notice of opposition, it was not presented as the closest prior art in the appellant's initial submissions. In fact, D3 was never mentioned except in a footnote (see the notice of opposition, page 13), as supplementary evidence on the subject of bread improvers, in the context of a discussion of certain dependent claims. Beyond that marginal issue, no substantiation for the introduction of D3 was given. The appellant's reasoning on inventive step started from the teaching of documents D1/D2 (regarded as the closest prior art).
- 7.2.2 It was undisputed that the inventive-step assessment starting from the technical teaching of document D3 was first presented by the appellant on the day of the oral proceedings before the opposition division, two months after the final date for making written submissions according to Rule 116(1) EPC.
- 7.2.3 According to Enlarged Board Opinion G 4/92 (OJ EPO 1994, 149, reasons 10), (new) arguments are reasons based on the facts and evidence which have already been put forward.
- 7.2.4 Rather than merely present an additional argument in support of a chain of reasoning already known in a factual context already established, the appellant changed its case.

The submission in question introduced a whole new chain of reasoning based on the allegation, made for the first time in the opposition proceedings, that document D3 was a promising springboard to the invention as claimed, and leading up to the conclusion

that the claimed subject-matter lacked inventive step starting from the teaching of document D3.

Thus, the appellant's submission related to a new alleged fact. Filing a piece of evidence (in the present case, document D3, filed with the notice of opposition) does not mean that any alleged fact or objection potentially derivable from that evidence is also introduced into the proceedings. Since D3, in a different context than previously substantiated, was to be used as evidence for the new objection regarding lack of inventive step, the factual basis of the discussion would have changed if that submission had been admitted.

- 7.2.5 In that context, the board's view concerning alleged facts is in line with decision T 926/07 (reasons 2.2.1). The interpretation given in decision T 604/01 was considered by the board as not applicable to facts not submitted in due time, as addressed by Article 114(2) and Rule 116(1) EPC.
- 7.2.6 The board therefore concludes that, since the inventive-step objection starting from the disclosure of document D3 was based on a new alleged fact and was first presented two months after the final date for making written submissions according to Rule 116(1) EPC, the opposition division had the discretionary power pursuant to Article 114(2) EPC and Rule 116(1) EPC to decide about its admission into the proceedings.
- 7.2.7 The board, within the scope of its limited powers to review discretionary decisions taken by a department of first instance, has no reason to find fault with the opposition division's decision in this regard, for the following reasons:

- (a) The subject-matter of the claim requests presented by the respondent up until the oral proceedings before the opposition division remained within basically the same general framework with respect to the technical features defining the process and product claimed (see the former main request, i.e. the claims as granted, and former auxiliary request 1, identical to the present main request). The appellant's inventive-step objection starting from the teaching of document D3 could have been presented just as well, and in the same form, at the outset of the opposition proceedings and was not occasioned by any change in the subject of the opposition proceedings.
- (b) Whether document D3 was regarded as the closest prior art during pre-grant proceedings is not relevant, since documents which may have played a part in pre-grant proceedings and the objections for which they were previously used are not automatically part of the opposition proceedings. As pointed out by the opposition division, while document D3 is mentioned in paragraph [0011] of the patent in suit, it is not highlighted as particularly pertinent (see the decision under appeal, reasons 10.1.2).

In view of the duty of an opponent to present its case in the notice of opposition (Rule 76(2)(c) EPC), there is no obligation on the patent proprietor or the opposition division to speculate on further possible objections never mentioned by the opponent. It is reasonable to believe that the appellant's submission on the assessment of inventive step starting from the teaching of document D3, presented only in the late afternoon on the day of the oral proceedings

before the opposition division (see the Minutes, 7.1 and 7.2), was in these circumstances surprising to both the respondent and the opposition division, which had not been duly notified by the appellant of that new objection.

As pointed out in Opinion G 4/92 (*supra*, reasons 7), for a party to wait until oral proceedings before presenting new facts or evidence that could have been submitted earlier may be sanctioned by the competent department of the EPO by disregarding such matter in accordance with Article 114(2) EPC.

- (c) The opposition division was correct in applying the criterion of *prima facie* relevance, which is an appropriate criterion in the case of submissions which were not filed in due time.
- (d) The appellant was given the opportunity to present its arguments in favour of the admission of its inventive-step objection starting from document D3 (see the Minutes of the oral proceedings before the opposition division, 7.2 to 7.6). Thus, its right to be heard pursuant to Article 113(1) EPC was respected.
- (e) The opposition division arrived at the conclusion that document D3 presented, *prima facie*, a less promising springboard for arriving at the claimed subject-matter than documents D1/D2. Even if that conclusion were to be erroneous, that would not amount to a procedural violation but at most to a substantive error in assessing the relevance of a document.

7.2.8 Hence, the board arrives at the conclusion that the opposition division did not exercise its discretion in an unreasonable manner.

- 7.2.9 Not admitting the inventive-step objection starting from document D3 was also in accordance with the practice that, if no substantiation is provided together with a document in the notice of opposition, the submissions made later in relation to such a document are subject to discretionary admission (see points 7.2.1 and 7.2.4 above). Otherwise, the proceedings could be front-loaded by submitting a large number of documents without substantiation.
- 7.3 In conclusion, the board has no reason to criticise the discretionary decision of the opposition division not to admit, in the given procedural circumstances (see the decision under appeal, section 10 and point VI above) the use of document D3 by the appellant as the starting point in the assessment of inventive step.
- 7.4 Since no substantial procedural violation occurred, the requirements under Rule 103(1)(a) EPC for a reimbursement of the appeal fee are not met.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



M. Schalow

A. Lindner

Decision electronically authenticated