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**D E C I S I O N**  
**of 15 January 2003**

**Case Number:** T 0023/01 - 3.3.2

**Application Number:** 95102934.7

**Publication Number:** 0672349

**IPC:** A21D 10/02

**Language of the proceedings:** EN

**Title of invention:**

Assembly containing a dough and process for its preparation

**Patentee:**

SOCIETE DES PRODUITS NESTLE S.A.

**Opponent:**

Eurodough SARL  
Robert Bosch GmbH

**Headword:**

Dough/SOCIETE DES PRODUITS NESTLE S.A.

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Main request and auxiliary requests 1, 2, 2A, 2B, 3, 4 and 5"  
"Inventive step: no - obvious combination of known means"

**Decisions cited:**

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**Catchword:**

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**Case Number:** T 0023/01 - 3.3.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.2**  
**of 15 January 2003**

**Appellant:** SOCIETE DES PRODUITS NESTLE S.A.  
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**Representative:** -

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 7 November 2000  
revoking European patent No. 0 672 349 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** P. A. M. Lançon

**Members:** J. Riolo  
S. U. Hoffmann

## Summary of Facts and Submissions

- I. European Patent No. 0 672 349 based on international application No. 95 102 934.7 was granted on the basis of 19 claims.

Independent claim 1 as granted read as follows:

"1. The combination (1) of a dough product (4) based on living yeast which generates gas over time, a closed packaging system for containing said dough product, said packaging system comprising a housing (2) of a material which is essentially impervious to oxygen, valve means (8) operatively associated with the housing for allowing exit of gas from the housing when the gas pressure exceeds a certain minimum value and which closes when said gas pressure drops below the minimum value to prevent entry of oxygen into the housing and a substantially oxygen-free atmosphere surrounding the dough."

- II. Oppositions were filed against the granted patent by respondent 1 (opponent O1) and respondent 2 (opponent O2). The patent was opposed under Article 100(a) EPC for lack of novelty and inventive step.

The following documents were cited *inter alia* during the proceedings before the Opposition Division and the Board of Appeal:

- (1) US-A-406870
- (2) JP-A-59031680
- (3) EP-A-487878
- (7) EP-A-158590

(11) WO-A-9301724

(27) CA-A-2090837

III. By its decision pronounced on 11 October 2000, the Opposition Division revoked the patent under Article 102(1) EPC.

It held that the patent in suit did not meet the requirements of inventive step.

In its opinion, the subject-matter of the contested patent was novel over documents (1) and (2) because a dough was not mentioned among the foodstuffs disclosed in these documents. It also considered that novelty was established over documents 3) and (11) because the packaging system disclosed therein did not have a valve contrary to the requirements of the claims of the patent in suit.

As to inventive step, the Opposition Division regarded document (3) as representing the closest state of the art. In its opinion the only distinguishing feature over said disclosure was the presence of a valve in the packaging system. Since it was known in the field of food technology, as illustrated for instance in document (1), that quality problems could be solved by using a package with a valve which maintains the inside pressure, the Opposition Division considered that it was an obvious measure to add a known valve to a known packaging system containing a foodstuff.

IV. The appellant (patentee) lodged an appeal against the said decision.

V. Oral proceedings were held before the Board on

15 January 2003. During these proceedings the Board highlighted the relevance of the prior art document (27), which was filed by respondent 1 with its letter dated 26 July 2001 and considered by the appellant in its letter of reply dated 4 December 2002.

- VI. During the appeal proceedings the appellant filed seven sets of claims as auxiliary requests 1, 2, 2A, 2B, 3, 4 and 5.

Independent claim 1 of the set of claims of the first auxiliary request reads:

"1. The combination (1) of a **non-proofed** dough product (4) based on living yeast which generates gas over time, a closed packaging system containing said dough product **for storage under refrigeration**, said packaging system comprising a housing (2) of a material which is essentially impervious to oxygen, valve means (8) operatively associated with the housing for allowing exit of gas from the housing when the gas pressure exceeds a certain minimum value and which closes when said gas pressure drops below the minimum value to prevent entry of oxygen into the housing and a substantially oxygen-free atmosphere **that fills the housing (2) and surrounds the dough product (4) before and during refrigerated storage.**"

Independent claim 1 of auxiliary request 2 corresponds to claim 1 of auxiliary request 1 with the following sentence added at the end of the text: "**,wherein during refrigerated storage the dough product is maintained under the substantially oxygen-free atmosphere without pressure build-up, allowing the refrigerated dough product (4) to become saturated with gas, the valve**

**means (8) allowing release of excess gas and other excess volatile compounds".**

Auxiliary requests 2A and 2B are identical in their subject-matter to auxiliary request 2 but are re-organised in compliance with Rule 29(1) EPC, taking (3) as closest prior art (2A) and (27) as closest prior art (2B).

Independent claim 1 of the set of claims of the auxiliary request 3 reads:

"1. The combination (1) of a **non-proofed** dough product (4) based on living yeast which generates gas over time, **the yeast being Lti yeast having very low gassing activity in refrigerated dough products up to 12°C**; a closed packaging system containing said dough product **for storage under refrigeration**, said packaging system comprising a housing (2) of a material which is essentially impervious to oxygen, valve means (8) operatively associated with the housing for allowing exit of gas from the housing when the gas pressure exceeds a certain minimum value and which closes when said gas pressure drops below the minimum value to prevent entry of oxygen into the housing; and a substantially oxygen-free atmosphere **that fills the housing** and surrounds the dough product (4) before and during refrigerated storage, **which atmosphere comprises carbon dioxide alone or in combination with nitrogen, the content of oxygen being less than 1,5 vol%**; and wherein during refrigerated storage the dough product is maintained under the oxygen-free atmosphere comprising carbon dioxide without pressure build-up, allowing the refrigerated dough product (4) to become

**saturated with gas, the valve means (8) allowing release of excess gas and other excess volatile compounds."**

Independent claim 1 of auxiliary request 4 corresponds to claim 1 of auxiliary request 2 with the following sentence added at the end of the text: "**,the dough product (4) being wrapped in a paper and the valve means (8) being spaced apart from the dough product to allow swelling of the dough product in the housing (2) without plugging the valve means (8)."**

Independent claim 1 of auxiliary request 5 corresponds to claim 1 of auxiliary request 3 with the following sentence added at the end of the text: "**,the dough product (4) being wrapped in a paper and the valve means (8) being spaced apart from the dough product to allow swelling of the dough product in the housing (2) without plugging the valve means (8)."**

As to inventive step over document (27), the appellant mainly submitted that this document discouraged the skilled person from promoting the release of gas from the container containing the dough because the gist of its teaching was precisely to prevent the escape of carbon dioxide. It therefore considered that it taught away from the use of a valve.

VII. Respondents 1 and 2 (opponents 01 and 02) argued that, in their opinion, the fact that the oral proceedings, which were scheduled for 17 December 2002, were postponed to 15 January 2003 did not change the time limit of 4 weeks for filing possible new requests set out in the Board's communication annexed to the summons



to attend the oral proceedings. Accordingly they considered that the auxiliary requests 1, 2, 2A, 2B, 3, 4 and 5 should not be admitted in the proceedings because they were filed only on 9 December 2002, ie later than 4 weeks with respect to the first date of the oral proceedings.

They moreover considered that they should also not be admitted because some of the amendments might introduce clarity problems, which could lead to difficulties in case of infringement procedure. In that respect they mainly referred to the term "non-proofed" in the claims and to the discrepancy between the expression "without pressure build up" in the claims and the disclosure in the description which stated that "a small over pressure (sic) will build up internally" (page 2, right column, lines 16 to 20).

As to novelty, respondent 1 maintained its objection with respect to document (1).

Concerning inventive step, the respondents considered that, as the only problem solved by the patent in suit over document (27) was to prevent the container from exploding, it would have been obvious to the skilled person to add a valve, like the one disclosed for instance in document (1), to the packaging disclosed in document (27), as the purpose of a valve was precisely to avoid overpressure inside the packaging.

VIII. The appellant requested that the decision of the Opposition Division be set aside and that the patent be maintained as granted or on the basis of one of the auxiliary requests 1, 2, 2A, 2B, 3, 4 and 5 filed on 9 December 2002.

Respondents 1 and 2 requested that the appeal be dismissed.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Auxiliary requests 1, 2, 2A, 2B, 3, 4 and 5: admissibility*

Contrary to the respondents' argument, the Board considers that the date to be considered for assessing whether the auxiliary requests have been filed in due time remains the actual date of the oral proceedings. As a matter of fact, the notification of postponement of oral proceedings states that the provisions as stated in the summons remain unchanged. Accordingly, the requirement mentioned in the summons to file amended claims not later than one month before the date appointed for the oral proceedings must apply with respect to the newly appointed date.

The auxiliary requests are therefore admitted in the proceedings.

There are moreover no formal objections under Article 123(2) and (3) EPC to the present version of the claims of these auxiliary requests, since all claims are adequately supported by the original disclosure and do not extend the scope of protection conferred by those of the patent as granted.

As to the clarity objections under Article 84 raised by respondent 1 against certain amendments in the claims,

the Board considers, as pointed out during the oral proceedings, that, although these features do not put into question the understanding of the claims by the skilled person, these features might have to be given their broadest meaning when assessing inventive step.

Accordingly the Board concludes that the claims of the auxiliary requests are admissible.

3. *Main request and auxiliary requests 1, 2, 2A, 2B, 3, 4 and 5: novelty*

The Board agrees with the Opposition Division's positive conclusions as to the novelty of the subject-matter of the patent in suit over the then available prior art documents.

The submissions of respondent 1 relating to novelty over document (1) made during the oral proceedings do not contain any new matter not properly dealt with in the Opposition Division's decision.

Document (27) has been cited during the appeal proceedings only with respect to inventive step and the Board considers that it is indeed not relevant for novelty.

As the subject-matter of the auxiliary requests corresponds in fact to the subject-matter of the main request merely restricted by the addition of further technical features, the Opposition Division's conclusions hold good for these requests as well.

Accordingly, the Board concludes that the subject-matter of the main request and of the auxiliary

requests fulfils the requirements of novelty (see above under III, and the Opposition Division's decision, pages 4 to 5, point III).

4. *Inventive step*

4.1 Main request

4.1.1 The contested patent relates to a combination containing a dough to be kept under refrigeration, which allows the possibility of having a long shelf-life and also of maintaining a good texture of the dough after several weeks (column 1, lines 1 to 3; column 3, lines 55 to 58).

The Board considers that document (27), also concerning a combination containing a dough to be kept under refrigeration which allows the possibility of storage for periods in excess of 90 days without deterioration of the texture and baking characteristics of the dough product, represents the closest prior art (page 1, lines 3 to 8; page 7, lines 16 to 25).

This document discloses the combination of a dough product based on living yeast which generates gas over time, a closed packaging system for containing said dough product, said packaging system comprising a housing of a material which is essentially impervious to oxygen and a substantially oxygen-free atmosphere surrounding the dough (page 4, lines 8 to 10; page 3, line 31 to page 4, line 8).

4.1.2 As acknowledged by the appellant during the oral proceedings, the only structural difference between the product claimed in the contested patent and the

combination disclosed in document (27) resides in the presence of "a valve means operatively associated with the housing for allowing exit of gas from the housing when the gas pressure exceeds a certain minimum value and which closes when said gas pressure drops below the minimum value to prevent entry of oxygen into the housing", ie a "one-way valve".

As apparent from the description of the patent in suit, "the problem at the base of this patent is that during the storage, the yeasts which are used continue to grow and produce carbon dioxide. Then, after a period of storage of several weeks, the internal pressure in the container can be so high that the container could explode." (page 2, left column, lines 13 to 18).

Neither the contested patent nor the various documents on file nor the appellant's submissions show any other particular effect for this difference over prior art document (27).

Accordingly, the problem to be solved by the subject-matter of claim 1 of the main request of the patent in suit as against document (27) can only be seen in the provision of a combination which is safer with respect to possible explosion linked to gas production.

4.1.3 This problem is solved by adding a one-way valve to the prior art packaging and, in the light of the description and examples of the patent in suit, the Board is satisfied that the problem has been plausibly solved.

4.1.4 Thus the question to be answered is whether the proposed solution, ie providing a packaging system with

a one-way valve, would have been obvious to the skilled person in the light of the prior art.

In that respect, document (1) describes packaging systems with a one-way valve according to the contested patent precisely to prevent rupture of the packaging caused by the release of gas generated by the foodstuff (column 1, lines 20 to 30 and column 2, lines 23 to 31).

This document moreover teaches that such a valve is suitable for packages of **any** stored material which might evolve gases during storage (column 4, lines 64 to 68).

Accordingly, the Board is satisfied that the skilled person faced with the problem of the provision of a combination which is safer with respect to possible explosion linked to gas production would add a one-way valve to the prior art packaging according to document (27) without inventive activity just by following the teaching of document (1).

- 4.1.5 The Board does not agree with the main argument submitted by the appellant, that the skilled person would not consider combining the packaging of document (27) with a one-way valve because this document taught that the escape of carbon dioxide produced by the yeasts produced a loss of volume after backing in the dough products (page 1, lines 22 to 27).

In fact, the skilled person would always look for a compromise between the risk of explosion and the necessity of having a CO<sub>2</sub> atmosphere. A one-way valve appears to be the best choice in that respect since it

allows the escape of excess gas while preventing the entry of air.

The Board notes moreover that document (27) does not require all the generated gas to be kept in the packaging since it is only the "escape of a sufficient volume of carbon dioxide" which produces deficiencies in the finished dough (page 1, line 25).

Accordingly, the Board is convinced that there is no technical prejudice preventing the skilled person from adding a one-way valve to the packaging disclosed in document (27).

- 4.1.6 In the light of these facts, the Board can only conclude that the subject-matter of claim 1 of the main request does not involve an inventive step as required by Article 56 EPC.

Under these circumstances, there is no need to consider the remaining claims.

#### 4.2 First auxiliary request

This request differs from the main request in that the dough product is a **non-proofed** dough.

Contrary to the appellant's argument the Board cannot however see the use of a non-proofed dough as a distinguishing inventive feature over document (27). In fact, this document clearly teaches that its aim is precisely to remove the necessity of a proofing step (page 3, lines 1 to 5 and page 9, lines 4 to 9).

Although the Board agrees with the appellant that there

are no working examples with living yeasts and a non-proofed dough in the document, this is however not relevant as far as inventive step is concerned as long as the teaching is available to the skilled person.

Accordingly the conclusions under 4.1.6 hold good for this request as well.

#### 4.3 Auxiliary request 2

This request differs from auxiliary request 1 in that it indicates the working of the one-way valve according to the patent in suit.

In that respect, the Board notes that it is precisely the same working as the one described in document (1) (column 2, lines 23 to 31).

Moreover, in the absence of any technical effect linked to the use of this particular valve, the only problem solved by the one-way valve remains merely the prevention of the rupture of the packaging, which is obvious as is apparent from 4.1 above.

Accordingly, the conclusions under 4.1.6 hold good for this request as well.

#### 4.4 Auxiliary request 2A and 2B

The subject-matter of these two requests is identical to the subject-matter of auxiliary request 2, the only difference being that claim 1 of auxiliary request 2 has been re-written in a two-part form.

In the case of a combination, it is however the



combination as a whole which has to be considered when assessing inventive step. Accordingly, these new drafts of claim 1 do not change the conclusions reached for auxiliary request 2.

#### 4.5 Auxiliary request 3

This request takes over all the amendments from subsidiary request 2. According to the appellant, the additional changes in claim 1 define merely the specific conditions corresponding to the best embodiments and do not change the invention over document (27).

As most of these features are moreover already known from document (27), the conclusions under 4.1.6 hold good for this request as well. In fact, the Lti (Low temperature inactive) yeast is generically disclosed on page 4, lines 8 to 10, where "a cold sensitive yeast which becomes inactive at refrigeration temperature" is described, and the combination of carbon dioxide with nitrogen on page 7, lines 26 to 30.

#### 4.6 Auxiliary request 4

The main new features of this request over the previous requests concern the fact that the dough product is wrapped in paper and that it is spaced so that it will not plug the valve means while swelling.

As is apparent, for instance, from document (7) (page 5, paragraph 2), it is a usual measure to wrap the dough product in paper. In addition, in the absence of any element showing why the skilled person would have encountered particular difficulties in spacing the

dough product in order to avoid plugging of the valve, the Board considers that the additional features of claim 1 of this request cannot provide an inventive step.

Accordingly, the conclusions under 4.1.6 hold good for this request as well.

#### 4.7 Auxiliary request 5

Claim 1 of this request is the result of a mere addition of the features of claim 1 of the third and fourth auxiliary requests. Since this juxtaposition of technical features does not lead to any particular effect, the conclusions reached with respect to claim 1 of the third and fourth auxiliary requests apply also to this subject-matter.

### **Order**

#### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

M. Townend

P. Lançon