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**D E C I S I O N**  
**of 18 February 1998**

**Case Number:** T 0332/94 - 3.3.1

**Application Number:** 87202387.4

**Publication Number:** 0271155

**IPC:** C11D 3/386

**Language of the proceedings:** EN

**Title of invention:**

Enzymatic dishwashing and rinsing process

**Patentee:**

UNILEVER N.V., et al

**Opponent:**

- (01) Henkel Kommanditgesellschaft auf Aktien  
(02) The Procter & Gamble Company

**Headword:**

Use of lipolytic enzymes/UNILEVER

**Relevant legal provisions:**

EPC Art. 54, 56, 83, 84, 123(2)(3)

**Keyword:**

"Amendments - change of category (here: from "process" to "use of a compound for a particular purpose in said process") - added subject-matter (no)"  
"Sufficiency of disclosure (yes)"  
"Support in the description under Art. 84 EPC (yes)"  
"Novelty of the "use" claim (yes)"  
"Inventive step (yes) - non-obvious solution of the technical problem underlying the patent in suit - "could/would" approach"

**Decisions cited:**

G 0002/88

**Catchword:**



Case Number: T 0332/94 - 3.3.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.1  
of 18 February 1998

**Appellant:**  
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**Representative:**  
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**Respondent I:**  
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**Representative:** -

**Respondent II:**  
(Opponent 02) The Procter & Gamble Company  
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**Representative:**  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 1 March 1994  
revoking European patent No. 0 271 155 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** A. J. Nuss  
**Members:** J. M. Jonk  
W. Moser

## Summary of Facts and Submissions

I. The Appellants (Patentees) lodged an appeal against the decision of the Opposition Division by which European patent No. 0 271 155 had been revoked in response to an opposition, based on Article 100(a) EPC, which had been filed against the patent as a whole.

II. Claim 1 of the patent in suit as granted read as follows:

"A process for machine dishwashing or rinsing, comprising treating dishes with an aqueous liquid having dissolved or dispersed therein an effective amount of an enzymatic dishwashing or rinsing composition comprising from 0.5-10% by weight of a detergent surfactant and from 0-90% by weight of a builder, characterised in that it further comprises from 0.005-100 LU/mg of a lipolytic enzyme."

III. The opposition was supported by several documents including:

- (1) DE-A-1 930 636,
- (2) DE-A-2 062 465,
- (3) EP-B-0 139 329,
- (4) FR-A-2 071 237,
- (6) EP-A-0 171 006,
- (7) EP-A-0 171 007,
- (8) EP-A-0 171 008,
- (9) US-A-4 101 457,
- (10) US-A-4 162 987,
- (11) EP-A-0 130 064, and
- (12) EP-B-0 005 131.

- IV. The decision was based on two sets of amended claims filed during the oral proceedings before the Opposition Division as main and auxiliary request.

The Opposition Division held that the subject-matter of Claim 1 of the main request, which related to a dishwashing process using a composition as specified in Claim 1 as granted, but containing a peroxy-type bleaching agent as a mandatory component, lacked novelty in view of document (3). Furthermore, they held that the subject-matter of Claim 1 of the auxiliary request, which related to the use of a lipolytic enzyme as a film or spot reducing agent in a process as specified in Claim 1 as granted, lacked inventive step in view of document (4), since this document disclosed that by using lipases the forming of films and spots on dishes and glasses could be further reduced.

- V. Oral proceedings before the Board were held on 18 February 1998.

- VI. During these oral proceedings the Appellants filed new Claims 1 to 5 as their only request, Claim 1 reading as follows:

"Use of a lipolytic enzyme as a spot reducing agent in a process for machine dishwashing or rinsing, comprising treating dishes with an aqueous liquid having dissolved or dispersed therein an effective amount of an enzymatic dishwashing or rinsing composition comprising from 0.5-10% by weight of a detergent surfactant and from 0-90% by weight of a builder and from 0.005-100 LU/mg of a lipolytic enzyme."

- VII. The Appellants argued that the subject-matter of present Claim 1, which comprised the spotting reducing

effect of lipase as a functional technical feature, was novel, since none of the cited documents disclosed this technical feature.

Moreover, they argued that the subject-matter of the present claims involved an inventive step, since the use of lipases in a process for machine dishwashing or rinsing surprisingly provided a reduced forming of spots on dishes and glasses compared to the closest state of the art, namely document (3). In this respect, they relied on the examples of the patent in suit and on the experimental results of a test-report submitted by Respondent II (Opponent 02) on 28 December 1993. They justified the unacceptably high average number of spots obtained according to Example 1 of the patent in suit by the extremely high hardness of the washing water being used in order to show the spotting reducing effect more strongly. Furthermore, they contended in particular that, although it was known from the cited documents that lipases could be used in compositions for machine dishwashing, the use of lipases for reducing spot formation was not obvious to a skilled person, since there was no link between the known fat-splitting activity of lipases and their ability to reduce spot formation which was substantially caused by deposition of insoluble salts, primarily calcium salts, from the wash liquor onto the surface of the articles. Moreover, they emphasised that a skilled person would not seriously contemplate using lipases in machine dishwashing compositions, since the cited prior art did not disclose any perceived benefit of using them.

VIII. Both Respondent I (Opponent 01) and Respondent II (Opponent 02) argued that the subject-matter of present Claim 1 was not supported as required under Article 84 EPC, since the originally filed patent application failed to demonstrate the control of spot formation

within the whole area of Claim 1, i.e. failed to reflect the general legal principle that the extent of the patent monopoly as defined by the claims should correspond to the technical contribution to the prior art. Thus, claims should not extend to subject-matter which would still not be at the disposal of a skilled person after reading the description. Moreover, they argued that the specification of the patent in suit did not give sufficient information to allow the claimed invention to be carried out as required by Article 83 EPC, since the information given did not enable the skilled person to reduce the spot formation within the whole scope of present Claim 1. In this context they relied on the test-report submitted by Respondent II on 28 December 1993 and corrected by the pages received on 17 January 1994.

The Respondents also maintained their point of view that the claimed subject-matter lacked novelty in view of document (3).

Moreover, they argued that the subject-matter of the present claims lacked inventive step. In this context, they disputed that the alleged reducing effect on spot forming was substantiated, since - as supported by the examples of the patent in suit and the said test-report - the use of a lipase showed different effects on spotting, depending on the cleaning composition, the nature of the soils and the testing method, and in one case even led to an increase of spotting. Furthermore, they emphasised that it was common general knowledge - as supported by documents (9), (10) and

(14) Detergency: Theory and Test Methods, Part III (1981), pages 816, 817 and 832-839 -

that the forming of spots and films on glasses and

dishes was not caused by deposition of insoluble calcium salts only but also involved the effect of fatty soils, and that it was also common general knowledge - as supported by document

(14A) Detergency: Theory and Test Methods, Part III  
(1981), 883-885 -

that information gained in laundry studies on detergent compositions containing enzymes might be expected to be relevant for dishwashing products too. Thus, in view of this common general knowledge and the known properties of lipases in dishwashing compositions or in other detergent compositions as indicated in the cited documents, in particular document (4), the use of lipases as claimed did not involve an inventive step.

IX. The Appellants requested that the decision under appeal be set aside and that the patent be maintained on the basis of Claims 1 to 5 submitted during oral proceedings on 18 February 1998.

The Respondents requested that the appeal be dismissed.

X. At the conclusion of the oral proceedings the Board's decision was pronounced.

### Reasons for the decision

1. The appeal is admissible.
2. The amendment of Claim 1 as granted, which was directed to a **process** comprising the use of a dishwashing or rinsing composition containing a lipolytic enzyme, to the **use** of a lipolytic enzyme in said process **as a spot reducing agent** is based on page 1, lines 25 to 29, and

the Examples 1 to 3 of the patent application as filed. Said passage on page 1 clearly states that it was found that the addition of lipases to a main wash dishwashing composition or to a rinse composition significantly reduces the formation of spots to the articles cleaned or rinsed with such a composition, and the examples support this statement (see in particular page 7, lines 10 to 12, and page 8, lines 21 to 23).

The subject-matter of present Claims 2 to 5 is based on the corresponding claims and examples of both the patent application as filed and the patent in suit.

Furthermore, the amendment of Claim 1 of the patent in suit as granted simply by way of a change of category from a process using a lipolytic enzyme per se, so as to include a particular use of the lipolytic enzyme in said process as an additional technical feature - here its use as a spot reducing agent - does not extend the protection of the patent, since a claim to a particular use of a compound in a process confers less protection than a claim to a process making use of the compound per se (see also G 2/88, OJ EPO 1990, 93, points 1 to 5 of the Reasons).

Thus, all amendments made to the claims as granted comply with the requirements of Article 123(2) and (3) EPC.

3. The Respondents submitted that the subject-matter of present Claim 1 lacked support by the description as required by Article 84 EPC and also was not sufficiently disclosed as required by Article 83 EPC.
- 3.1 The Board agrees with the Respondents' submissions in this respect that **the claims**, in order to fulfil the requirement of Article 84 EPC, must not only contain



all the features indicated as essential in the description, but must also reflect the effective contribution to the art by enabling a skilled person, after reading the description of the application as filed, to carry out their teaching throughout the field to which they applied, and that the patent application as filed, in order to fulfil the requirement of Article 83 EPC, must contain sufficient information to allow a person skilled in the art to carry out the invention within the whole area that is claimed. Thus, although the requirements of Articles 84 and 83 EPC are related to different parts of the patent in suit, they give effect to the same legal principle that the patent monopoly should be justified by the technical contribution to the art (see also T 409/91, OJ EPO 1994, 653, and T 659/93 of 7 September 1994).

3.2 Therefore, in the present case, the question to be answered is whether the patent application as filed and the patent as granted sufficiently disclose the achievement of a spot reducing effect as claimed in the form of a functional feature within the whole area of present Claim 1.

3.3 Examples 1 and 2 of the patent in suit show that by using a dishwashing composition comprising a lipase the average number of spots is reduced from 250 to 100 (see Example 1, page 5, lines 4 to 6) and that by using a final rinse comprising a lipase the average spot-score is reduced from 5 (more than 20 spots) to 2.7 (about 5 spots) (see Example 2, page 6, lines 2 to 4). Thus, these examples show that the use of a lipolytic enzyme provides a significant spot reducing effect.

3.4 The Respondents disputed that there was sufficient proof for the alleged spot reducing effect within the whole scope of present Claim 1, since the average

number of spots found in accordance with Example 1 was undesirably high and because a test in accordance with ASTM D3556-85 using a margarine/milk-material as soil and a phosphate-free dishwashing composition showed a significant worsening of the spot-score from 2.1 to 4.3 (see the Table on page 3, last two lines, of the test-report filed by Respondent II).

3.5 However, according to Example 1 of the patent in suit **extremely hard water of 27°GH** instead of the normally used water of about 9°GH was applied. Therefore, having regard to the common general knowledge - as supported by e.g. document (14), page 837, paragraphs 1 and 2, and document (14A), page 885, paragraphs 1 to 3 - in that the hardness of water is a substantial factor in spot formation, the Board considers it credible that by using water having a normal hardness of about 9°GH consumer desirable average spot numbers could be obtained. This point of view is supported by document (3), which - as indicated below - is considered by the Respondents as the closest state of the art and shows in its examples using dishwashing compositions of the same type as Example 1 of the patent in suit, but comprising water having a **hardness of about 9°GH** instead of 27°GH, spot-scores of about 1.3 **in the absence of lipase** as a spot reducing agent.

3.6 The test-report as filed by Respondent II concerns four comparative tests. The tests [A(i)/A(ii)] and [A(iii)/A(iv)] were performed according to **the test-method of the patent in suit** using egg yolk as soil in order to determine the spot reducing effect of a **phosphate containing** dishwashing composition as specified in the Table on page 1 of the report and of a **phosphate-free** one as specified in the same Table, respectively. The comparative tests [B(i)/B(ii)] and [B(iii)/B(iv)] were carried out according to the **ASTM**

D3556-85 test-method as illustrated in the Table on page 2 of the test-report using a specific soil based on margarine and powdered milk and the same phosphate containing composition and the same phosphate-free compositions as applied in the first two tests. The results of these tests are summarised in the corrected Table on page 3 as submitted on 17 January 1994.

This table shows that according to the comparative tests [A(i)/A(ii)], [A(iii)/A(iv)] and [B(i)/B(ii)] spot-score reductions of 4.1 to 3.4, 5.0 to 3.9 and 3.5 to 2.9, i.e. of 17%, 22% and 17%, respectively, are obtained. Therefore, these three comparative tests actually support the spot reducing effect as claimed according to the patent in suit.

Moreover, this Table indicates that in accordance with the comparative test [B(iii)/B(iv)] using the ASTM test-method and the phosphate-free composition an increase of the spot-score of 2.1 to 4.3, i.e. an increase of 105%, was determined.

However, the Board notes that the test-method according to the patent in suit and the ASTM test-method in the comparative tests [A(i)/A(ii)] and [B(i)/B(ii)] using identical phosphate containing dishwashing compositions give an identical degree of spot reduction, namely - as indicated above - a reduction of 17%, whereas the same test-methods in the comparative tests [A(iii)/A(iv)] and [B(iii)/B(iv)] using again identical phosphate-free dishwashing compositions give entirely different spotting results, namely - as indicated above - a reduction of 22% and an increase of 105%, respectively.

Although it appears plausible to the Board that different test-methods could provide somewhat different test-results, the Board considers it unlikely that two

test-methods both being developed to estimate the degree of spotting and providing the same test-results in case of identical dishwashing compositions would give totally different and even conflicting results in case of other identical dishwashing compositions. Moreover, Respondent II did not question the suitability of the test-method according to the patent in suit, nor did he provide any explanation for said conflicting test-results which could just have been an isolated failure. Therefore, the Board cannot accept these test-results as a plausible support for the Respondent's objection that a reduced spot formation is not achieved within the whole scope of present Claim 1.

- 3.7 In these circumstances, the submissions based on Example 1 of the patent in suit and on this test-report as put forward by Respondent II, who in accordance with the established case law of the Boards of Appeal carries the burden of proof for the facts he alleges, cannot be accepted by the Board as proper evidence in the absence of convincing substantiation.
- 3.8 Thus, having regard to the above considerations, the Board concludes on the balance of probabilities that the spot reducing effect of a lipolytic enzyme as claimed is achieved within the whole area of present Claim 1 and that, therefore, the requirements of both Articles 84 and 83 EPC are fulfilled.
4. After examination of the cited prior art documents, the Board has reached the conclusion that the now claimed subject-matter of present Claim 1 is novel, since they do not disclose the use of lipolytic enzymes as spot reducing agents in a process for machine dishwashing or rinsing.

- 4.1 In this context, the Respondents argued that document (3) not only disclosed the use of enzyme-containing dishwashing compositions falling under the scope of present Claim 1 in order to reduce the tendency of spot formation, but also that enzymes, such as lipases, were essential constituents of said compositions. Moreover, they argued that a skilled person, reading document (3) and having regard to the fact that it was common general knowledge that spot-formation was not only caused by water-insoluble calcium salts but also by fatty materials, would understand that the lipolytic effect of lipases would contribute to spot-reduction.
- 4.2 However, according to the established jurisprudence of the Boards of Appeal, when assessing novelty the question is whether a disclosure as a whole directly and unambiguously makes available to a skilled person as a technical teaching the subject-matter for which protection was sought.
- 4.3 According to document (3) a suitable dishwashing composition indeed comprises an enzyme (see e.g. page 2, lines 31 to 34, and Claim 1). However, document (3) discloses in particular that **enzyme-containing** dishwashing compositions, despite the presence therein of a calcium-sequestrant, **give rise to spot-formation** and that it has been found that **a spot-reducing effect** can be achieved by the inclusion in the dishwashing composition **of an effective amount of a hectorite layered clay** (see page 2, lines 15 and 25, as well as lines 35 and 36, and the examples wherein the effect of such a clay is demonstrated). Moreover, it discloses that as enzymes proteolytic, amylolytic, lipolytic and cellulolytic enzymes can be used and that preferred compositions contain proteolytic and/or amylolytic enzymes, especially **mixtures of proteolytic and**

**amylolytic enzymes** (see page 2, lines 50 to 52, page 3, lines 1 and 2, and the examples).

- 4.4 Therefore, in the Board's judgment, document (3) does not clearly and unambiguously teach to apply a lipolytic enzyme as a spot-reducing agent.
5. This leaves the issue of whether the subject-matter of the present claims involves an inventive step.
- 5.1 The Board considers, in agreement with the parties, that the dishwashing compositions providing a reduced spot-formation as described in **document (3)** represent the **closest state of the art**.
- 5.2 Regarding this closest prior art the Appellants argued essentially that the reduced spot-formation as obtained by the use of a hectorite layered clay (see under point 4 above, last paragraph) was still not satisfying, and that according to the claimed invention, surprisingly, a further reduction of the spot-formation was achieved.
- 5.3 Therefore, in the light of this closest state of the art, the Board sees the **technical problem underlying the patent in suit** in providing a new way to further reduce spot-formation on articles cleaned or rinsed in a process for machine dishwashing or rinsing (see also page 2, lines 24 to 26, of the patent in suit).

According to present Claim 1 **this technical problem is essentially solved by the use of a lipolytic enzyme as a spot-reducing agent**.

5.4 Having regard to the examples of the patent in suit and the considerations above under points 3.2 to 3.7, the Board considers it plausible that the technical problem as defined above has been solved.

In this context, the Respondents submitted that the examples of the patent in suit did not show a proper comparison with the closest state of the art, since document (3) clearly disclosed the use of dishwashing compositions which not only comprised a layered clay but also a lipase, so that actually no improvement was substantiated. However, as indicated above under point 4, last paragraph, document (3) unambiguously discloses that the use of compositions containing proteolytic and/or amylolytic enzymes is preferred. Moreover, it does not describe any beneficial effect of a lipolytic enzyme. In these circumstances, the Board does not see any reason to require a comparison with a lipase-containing composition. Thus, the Respondents' submissions in this respect cannot be accepted by the Board.

5.5 The question now is whether the cited prior art would have suggested to a person skilled in the art solving the above-indicated technical problem in the proposed way.

5.6 Document (3) - as indicated above under point 4.3 - relates to enzyme-containing dishwashing compositions providing a **spot-reducing effect**. Moreover, it discloses in particular that **this effect is achieved by the inclusion therein of an effective amount of a hectorite layered clay** and that the use of proteolytic and/or amylolytic enzymes is preferred. Thus, having regard to the fact that this document does not indicate any beneficial effect of lipolytic enzymes, let alone a beneficial effect concerning spot formation (see also

under point 5.4 above), in the Board's judgment, it does not give any pointer to the skilled person that the technical problem underlying the patent in suit could be solved by using a lipase as a spot-reducing agent.

5.7 Document (4) concerns a process for machine dishwashing and rinsing. In particular it discloses that the problem of **deposition of starch** can be solved by adding an **amylase** at the beginning of the rinsing step (see page 1, line 25, to page 2, line 2). Moreover, it discloses that **spots** on the articles as obtained after drying effectively can be avoided by **additionally using a surfactant** in the rinsing step (see page 2, lines 2 to 9, and page 2, line 35, to page 3, line 4). Furthermore, it is indicated in this document, that in order to increase the **cleaning effect** of the rinsing composition, **in addition to the amylase, a protease can be used, and also, if one desires, a lipase** (see page 3, lines 5 to 7). Thus, in view of the fact that document (4) does not disclose any relationship between the enzyme activity and spot formation a skilled person would - as in case of document (3) - not derive any pointer from this document to apply a lipolytic enzyme as a spot-reducing agent.

5.8 Document (9) relates to bleach-free machine dishwashing compositions capable of providing **improved anti-redeposition characteristics for soils composed of grease and grease-protein complexes** while avoiding the drawbacks of chlorine-containing bleaches, which compositions are characterised in that they comprise a **nonionic surfactant and a particular enzyme, as well as a sulphonated aromatic compound as a compatibilising agent if less preferred enzymes are used** (see column 1, lines 17 to 34, column 1, line 55 to column 2, line 11, column 4, lines 18 to 33, and column 5, line 67 to



column 6, line 2). **Suitable enzymes are proteolytic enzymes** having an iso-electric point greater than 8.5, preferably in the range of about 9.5 to about 12, and particularly preferred are those having a proteolytic activity of 80 to 100% of maximum activity when measured at pH 12 (see column 4, lines 30, 31 and 49 to 54, column 11, line 65 to column 14, line 36, and Claims 1, 4 and 5). Example XIII shows that compared with Composition A, i.e. a typical bleach-containing dishwashing composition, Composition E comprising a **less preferred proteolytic enzyme**, namely Alcalase having a proteolytic activity of less than 80% when tested at pH 12, **yielded relative low spotting results** (see, in particular, column 23, lines 23 to 58, and the Table in column 22). It is true that it is indicated in this document that, in addition to the essential enzyme component, other enzyme species, such as amylases and lipases, may be added (see column 14, lines 37 to 39). However, it does not give any concrete information about possible benefits of these optional enzyme species.

Furthermore, document (10), a document assigned to the same patentee as the earlier published document (9) and essentially relating to the same subject-matter, discloses in particular that an **improved cleaning performance** for a range of soils in machine dishwashing can be obtained by using compositions comprising a **nonionic surface-active agent** and a binary enzyme system consisting essentially of **a mixture of a specifically selected proteolytic enzyme and an amylolytic enzyme in a specific ratio**, whereby the proteolytic enzyme corresponds to those of **document (9)** (see column 1, lines 9 to 24, column 2, line 67 to column 3, line 8, column 3, line 52 to column 4, line 4, column 9, lines 44 to 57, and the examples). It is true that document (10) discloses that it was an

object of the invention to provide dishwashing compositions showing improved cleaning and **redeposition characteristics** (see column 3, lines 26 to 30). However, it does not contain any substantiation of said desired antiredeposition characteristics. Moreover, in view of the fact that there is **no disclosure or suggestion in this document to use a lipolytic enzyme** or lipase, any improvement in this respect could never be assigned to the use of such an enzyme.

Thus, in view of these considerations, the Board concludes that documents (9) and (10) do not provide to the skilled person a useful hint to the solution of the above defined technical problem.

- 5.9 Document (2) relates to machine dishwashing compositions having a reduced phosphate content, an improved cleaning performance and a decreased corrosion effect, which **optionally** comprise **one or more enzymes selected from amylolytic, proteolytic and lipolytic enzymes** (see page 2, and Claim 1). It discloses that suitable enzymes are normally mixtures of enzymes having a combined **cleaning activity**, in particular with respect to **starch and proteins** (see page 6, third paragraph). Furthermore, it is indicated that, insofar as the compositions contain enzymes, they are suitable to **prevent the forming of starch films** on the dishes or even to break down already formed films (see page 7, last but one line, to page 8, line 2). The only examples of enzyme containing compositions, namely Examples 7 and 8, contain **enzymes having proteolytic and amylolytic activity**. Thus, in view of the fact that this document - as in case of document (4) - does not disclose any relationship between the enzyme activity and **spot formation**, a skilled person would not derive any incentive from this document to apply a lipolytic enzyme as a spot-reducing agent.

5.10 Documents (6), (7) and (8) relate to enzyme containing machine dishwashing compositions for use at low temperatures. All three documents indicate that mixtures of amylolytic and proteolytic enzymes provided an improved cleaning effect, but that the addition of lipase in order to improve the removal of fatty soils was not much effective (see each time page 2, second paragraph). Furthermore, they disclose that the cleaning of dishes containing fatty soils, which are difficult to remove, such as beef-tallow, can be improved by using compositions comprising certain cleaning intensifiers in addition to the enzyme-mixture (see each time page 2, last paragraph). Although, these documents disclose that lipases could be used (see each time page 3, lines 29 to 32), this use is not further substantiated. Actually, in all the examples a 1 : 1 mixture of an amylase and a protease is used (see documents (6) and (7), page 13, and document (8), page 15). In this context, the Board notes that even in the examples concerning the removal of beef-tallow, i.e. a fatty soil, a lipase was not applied (see each time Table 2). Thus, apart from the fact that a skilled person would rather derive from these documents that the use of lipases would make little sense, he would not derive any pointer from these documents to use a lipolytic enzyme as a spot-reducing agent.

5.11 Documents (1) and (11) relate to detergent compositions comprising lipases, which can be used for laundry washing or for cleaning hard surfaces (see document (1), page 1, last paragraph to page 2, second paragraph, and page 7, last paragraph to page 8, second paragraph; and document (11), page 2, lines 13 to 19, page 7, lines 20 to 24, and Claims 1 and 9). These documents are, therefore, less relevant than the documents discussed above, since they do not relate to dishwashing. It is true, that document (14A)

representing common general knowledge specifically states that the **information gained in laundry studies on detergents containing enzymes might be expected to hold for dishwashing products** (see page 884, third paragraph), but even if the skilled person had derived from this teaching that lipases as disclosed in documents (1) and (11) **could** be used in machine dishwashing compositions, he would not have been lead by the combined teaching of said documents to the claimed solution of the above defined technical problem.

- 5.12 Document (12) relates to a process **for removing deposits from soft contact lenses**, which deposits are formed during use (see page 2, lines 24 to 39). Thus, the teaching of this document concerns a problem which is totally unrelated to that underlying the patent in suit, so that a skilled person would not have taken it into account in order to find a solution to the present problem.
- 5.13 Document (14), representing common general knowledge, indeed discloses that filming and spotting are not **completely dependent on the hardness** of the rinse water alone, but **also involve proteinaceous and fatty soil** (see page 837, second paragraph). However, this teaching does not exclude that - as submitted by the Appellants - spot formation is substantially caused by deposition of insoluble salts. Therefore, the vague information that spots forming **involves** among others fatty materials does not provide an incentive to the skilled person that spot forming would effectively be reduced by using lipases.
- 5.14 In this context, the Board observes that a skilled person in view of the disclosure of the cited documents **could** have used a lipolytic enzyme containing

composition in a process for dishwashing or rinsing. However, according to the established case law of the Boards of Appeal for determining lack of inventive step, it is necessary to show that considering the teaching of the relevant prior art as a whole, without using hindsight based on the knowledge of the claimed invention, the skilled person **would** have arrived at the **claimed solution of the technical problem to be solved**. However, as indicated above, a skilled person, when trying to solve the technical problem underlying the patent in suit, would not have any reason to use a lipolytic enzyme as a spot reducing agent.

5.15 In conclusion, the Board finds that the subject-matter of present Claim 1 involves an inventive step in the sense of Article 56 EPC.


Since Claims 2 to 5 relate to particular embodiments of the subject-matter of Claim 1, they are also allowable.

**Order**

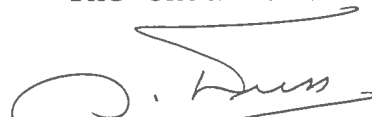
**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division with the order to maintain the patent with Claims 1 to 5 submitted during the oral proceedings on 18 February 1998 and a description to be adapted thereto.

The Registrar:

  
E. Görgmayer

The Chairman:

  
A. Nuss

