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**D E C I S I O N**  
**of 7 November 2001**

**Case Number:** T 0691/97 - 3.3.6

**Application Number:** 91201409.9

**Publication Number:** 0462643

**IPC:** C11D 17/00

**Language of the proceedings:** En

**Title of invention:**  
Lavatory cleansing block

**Patentee:**  
UNILEVER N.V. et al

**Opponent:**  
PROCTER & GAMBLE E.T.C.  
Jeyes Group Limited  
S.C. Johnson & Son, Inc.

**Headword:**  
Cleaning block/UNILEVER

**Relevant legal provisions:**  
EPC Art. 54, 56  
EPC R. 57a

**Keyword:**  
"Novelty (main request; no) - prior art composition  
overlapping to a large extent with claimed subject-matter"  
"Inventive step (second auxiliary request; no)"

**Decisions cited:**  
T 0124/87, T 0026/85

**Catchword:**

-



Case Number: T 0691/97 - 3.3.6

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.6**  
**of 7 November 2001**

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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 30 April 1997  
revoking European patent No. 0 462 643 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** P. Krasa  
**Members:** L. Li Voti  
C. Rennie-Smith

## Summary of Facts and Submissions

- I. The present appeal is from the decision of the Opposition Division to revoke European patent No. 0 462 643 relating to a lavatory cleansing block.

Independent Claim 1 as granted reads as follows:

"1. A lavatory rim cleansing block comprising:  
30 to 80% by weight of an anionic surfactant; 0 to 50% by weight of an inert or electrolyte filler; 5 to 50% by weight of a water-soluble, active chlorine, bleaching agent, and 5 to 15% by weight of a hydrophobic liquid oily perfume structurant."

Dependent Claims 2 to 9 relate to particular embodiments of the blocks of Claim 1 and independent Claim 10 relates to a process for preparing such lavatory blocks, wherein "the ingredients are mixed to form a dough, which is then extruded and cut into blocks of suitable lengths."

- II. Three notices of opposition had been filed against the granted patent, wherein the Respondents 01, 02 and 03 (Opponents 01, 02 and 03) sought revocation of the patent inter alia on the grounds of Article 100(a) EPC, in particular because of alleged lack of novelty and of inventive step of the claimed subject-matter.

The oppositions were based inter alia upon the following documents:

(2)= EP-A-0341836

(4)= EP-A-0101402

III. In its decision, the Opposition Division found that the claimed invention did not fulfil the patentability requirements of the EPC.

In particular the subject-matter of Claim 1 was found to lack novelty in the light of the disclosure of document (4).

In this respect the Opposition Division held that

- this document disclosed tablets suitable for use in the cistern of a lavatory which comprised all the essential components of the blocks claimed in the patent in suit;
- the amounts of these components had to fall necessarily within the ranges of Claim 1;
- the in-cistern tablets of the prior art were therefore not distinguishable from the rim blocks of the patent in suit;
- the tablets of document (4) were moreover prepared by a process including all the features of the process of Claim 10 of the patent in suit.

IV. An appeal was filed against this decision.

At the oral proceedings held before the Board on 7 November 2001 the Appellants (Patent Proprietors) filed two new sets of claims designated as first and second auxiliary requests.

Claim 1 of the first auxiliary request read as follows:

"1. Process for preparing a lavatory cleansing block, wherein the block comprises:  
30 to 80% by weight of an anionic surfactant; 0 to 50% by weight of an inert or electrolyte filler; 5 to 50% by weight of a water-soluble, active chlorine, bleaching agent, and 5 to 15% by weight of a hydrophobic liquid oily perfume structurant, and wherein said process comprises the step of mixing the said ingredients to form a single dough which is then extruded and cut into blocks of suitable lengths."

Claim 1 of the second auxiliary request differed from Claim 1 of the first auxiliary request only insofar as the word "single" before "dough" was deleted.

Both requests were accompanied by eight dependent claims containing the additional features of Claims 2 to 9 as granted.

V. As regards the novelty of the claimed products (main request) the Appellants submitted orally and in writing that:

- document (4) (in particular example 1 of this document) related to blocks prepared by extrusion of two different phases (A) and (B)
- this document did not contain any specific disclosure of the ratio at which such phases were used in the preparation of the blocks, but it might be assumed that phases (A) and (B) should be used at a 1:1 ratio;
- the specific blocks described on page 5 of document (4) would fulfill the requirements of



Claim 1 of the patent in suit only when phase (A) amounted to 25 to 26% of the block, i.e. in a very narrow range of the theoretically possible ratios of phase (A) to phase (B);

- the general teaching contained on page 4 did not detract from the novelty of the claimed subject-matter since the skilled person had to select specific components e.g. a perfume, and more specifically a hydrophobic liquid oily perfume structurant, instead of a plasticizer and appropriate amounts of the various components from the disclosed broader intervals in order to arrive at the claimed subject-matter;
- as shown by a declaration of Mr Roberto Tummiolo (Tummiolo's declaration), filed with a letter dated 20 November 1997, an attempt to reproduce experimentally the specific blocks disclosed at page 5 of document (4) had failed.

As regards the novelty of the process claims (main and auxiliary requests) the Appellants argued that the process of document (4) required the preparation of the blocks by extrusion of two different phases (page 2, lines 17 to 26) whilst the patent in suit required an almost homogeneous mixing of the components before extrusion.

The Appellants submitted further at the oral proceedings that

- document (4) was not relevant for the assessment of inventive step since it related to a block wherein the sensitive components were physically

separated by segregation in one particular phase (page 2, lines 1 to 11);

- document (2), representing the closest prior art, dissuaded the skilled person from using perfumes in combination with chlorine bleaching agents (page 3, lines 37 and 38);
- the skilled person would have thus not tried to prepare a block as claimed since he would have expected it to be unstable;
- consequently, the claimed subject-matter involved an inventive step.

VI. The Respondents' counter-arguments presented in writing and orally can be summarized as follows:

- the claimed blocks lacked novelty in the light of document (4) since, for example, the generic frame compositions described on page 4 or the more specific example on page 5 encompassed embodiments falling within the scope of Claim 1;
- the experimental reworking of example 1 of this document according to Tummiolo's declaration, submitted by the Appellants, was unclear and thus unreliable;
- the process of preparation of the blocks of example 1 of document (4) was identical to the claimed process since in the prior art process a single dough was obtained by mixtures (A) and (B) before extrusion.

As regards inventive step they argued that

- the skilled person would find the claimed invention obvious; for example, he would increase the amount of anionic surfactant in the product disclosed in document (4) when discarding some optional components;
- it was also obvious to incorporate into the known blocks of document (2) components, such as perfumes, which were stable in the presence of chlorine bleach; in this respect document (4) had already suggested which type of perfume was expected to be compatible with chlorine bleaching agents (page 5, lines 11 ad 25).

The Respondents argued additionally that the matter of obviousness had already been discussed at length in the Notices of Opposition and the Proprietors' reply and remittal of the case to the first instance for further consideration of inventive step was thus inappropriate.

- VII. The Appellants requested that the decision be set aside and the case be remitted to the first instance for the consideration of inventive step. They requested alternatively that the patent be maintained on the basis of the first or second auxiliary requests.

The Respondents requested that the appeal be dismissed.

- VIII. At the end of the oral proceedings, the chairman announced the decision of the Board.

## **Reasons for the Decision**

1. *Main request*

Novelty

- 1.1 Claim 1 of the main request relates to a lavatory cleansing block, which can be used under the rim of a lavatory bowl comprising:

30 to 80% by weight of an anionic surfactant; 0 to 50% by weight of an inert or electrolyte filler; 5 to 50% by weight of a water-soluble, active chlorine, bleaching agent, and 5 to 15% by weight of a hydrophobic liquid oily perfume structurant.

Document (4) discloses tablets which can be used in the cistern of a lavatory (page 2, lines 1 to 16 and 27 to 33).

These tablets do not differ structurally from a block as claimed and, being resistant to humidity, they can also be used under the rim of a lavatory bowl.

Therefore, in Claim 1 of the patent in suit the designation of the claimed product as a block to be used under the rim of a lavatory bowl does not amount to a functional feature distinguishing it from the tablets disclosed in document (4).

These known tablets are prepared by extrusion of two different phases (page 2, lines 17 to 26), although this document does not contain any specific disclosure of the ratio in which such phases have to be used in the preparation of the blocks.

However, as submitted by the Appellants in their letter

of 18 August 1997 (page 2) and at the oral proceedings, it might be assumed that phases (A) and (B) should be used in a 1:1 ratio or a not excessively different ratio.

The Board agrees with the Appellants and finds that the specific blocks described on page 5 of document (4), as shown in the table attached to the statement of the grounds of appeal dated 18 August 1997, would fulfill the requirements of Claim 1 of the patent in suit only when phase (A) amounts to 25 to 26% of the block, i.e. in a very narrow range of the theoretically possible ratios of phase (A) to phase (B) and that this specific example therefore cannot detract from the novelty of Claim 1.

However, according to the more generic formulation given on page 4, the tablet of example 1 consists of two phases (A) and (B), each containing:

15 to 60% of an anionic surfactant;  
0 to 60% of an inorganic salt;  
3 to 20% of a plasticizer and/or perfume and  
0 to 25% of dissolving regulating agents.

Phase (A) contains additionally 5 to 50% of a chlorine releasing disinfecting agent, i.e. a chlorine bleach, whereas phase (B) contains additionally 2 to 15% of a dye (page 4, lines 16 to 30).

Since for both phases the respective concentration ranges for all components are the same with the exception of, on the one hand, the chlorine bleach which is only present in phase (A) and, on the other hand, of the dye which is only present in phase (B),

the upper and lower limits of the concentration ranges of the former components remain the same in the final tablet, whilst the respective concentration ranges of the latter two components in the final tablet depend on the quantitative proportions of phases (A) and (B) in the said tablet.

From a comparison of the concentrations required by Claim 1 of the patent in suit and those encompassed by example 1 on page 4 of document (4), it is readily apparent that the products of the prior art, taking into account any reasonable ratio of phases (A) and (B) in the final product, overlap to a large extent with those claimed in the patent in suit.

For example,

- the amount of surfactant is 30 to 80% in the patent in suit and 15 to 60% in document (4);
- the inorganic salt can amount from 0 to 50% in the patent and from 0 to 60% in document (4);
- the chlorine bleach is 5 to 50% in the patent and somewhat less than 5 to 50% in document (4) depending on the amount of phase (A) in the final tablet. By using 50% of phase (A) in the final tablet its concentration would be, e.g. 2.5 to 25% and by using only 20% of phase (A) it would be 1 to 10%, thus still largely overlapping with the respective range given in Claim 1 of the patent in suit;
- the amount of plasticizer and/or perfume in document (4) is 3 to 20% which also largely

overlaps with the amount of 5 to 15% of hydrophobic liquid oily perfume in Claim 1 of the patent in suit.

Moreover, the wording in document (4) "plasticizer and/or perfume" (page 4, lines 27 to 28) implies that there is no substantial difference in this document between perfume and plasticizer and therefore that perfume can be used alone; example 1 confirms that perfume oil must also be regarded as a plasticiser (page 5, lines 9 to 13) and such a perfume oil, in particular pine oil, is used in the specific illustrative example on page 5 (see lines 25 and 33). Therefore, example 1 undoubtedly contains the teaching that the disclosed tablet can contain 3 to 20% of a hydrophobic liquid oily perfume.

- 1.2 The Appellants argued that the claimed subject-matter had to be regarded as novel since a skilled person had to select a combination of features from the broad teaching of page 4 of document (4) in order to arrive at the claimed subject-matter.

The Board finds, however, that the disclosure of page 4, being part of illustrative example 1, i.e. of one example teaching how to perform the invention disclosed in that document, enables the skilled person, in the absence of an explicit warning to the contrary, to perform the invention in the whole disclosed range of compositions: "Die Zusammensetzung...liegt in folgendem Bereich" (lines 16 to 18). Therefore, it is not necessary in the present case to gather different pieces of information from different parts of the prior art document and thus there is no selection to be performed.

- 1.3 The Appellants additionally argued that an experimental reworking of the blocks of example 1, as described in the Tummiolo's declaration, had failed and therefore the teaching of document (4) was unreliable.

However, the declaration in question does not describe in any detail what was prepared and tested but only says that the tested composition was that contained on page 4 of an English translation of document (4) (the Appellants specified at the oral proceedings that the tested composition corresponded to the composition on page 5 of the prior art document).

This translation, however, was neither filed by the Appellants with the declaration nor made available to the Board thereafter. The Appellants' letter of 29 December 1997 confirmed, on the contrary, that the previously filed declaration was the only evidence upon which the Appellants intended to rely: "Further to the Respondents letter of the 20 November 1997, we note that we have no further evidence to file at this time other than the letter of Mr Tummiolo as already filed...".

Therefore, since the Tummiolo's declaration does not even identify what was tested, the Board must disregard this experimental evidence.

- 1.4 Since page 4 of document (4) discloses a block comprising all the essential components of Claim 1 in concentrations largely overlapping with those of the patent in suit (see point 1.1 above), it is the Board's finding that the subject-matter of Claim 1 lacks novelty (see T 124/87, OJ EPO 1989, 491, point 3.2 of the reasons. and T 26/85, OJ EPO 1990, 022, points 9



and 10 of the reasons).

In the absence of novelty, the main request (including remittal for consideration of inventive step) must therefore be rejected.

2. *Procedural issues (first and second auxiliary request)*

The Appellants filed new first and second auxiliary request at the oral proceedings. These requests were thus late filed.

However, Claim 1 of the first auxiliary request is identical to Claim 4 of the auxiliary request filed with the grounds of appeal and Claim 1 of the second auxiliary request is substantially the same as Claim 10 as granted.

Therefore, the filing of these requests in order to overcome the novelty objection raised on the basis of document (4) cannot be considered as taking the Respondents by surprise and could be easily dealt with by them at the oral proceedings. Thus the introduction of these requests neither substantially alter the subject of discussion nor delay the proceedings.

The Board thus finds these requests admissible.

3. *First auxiliary request*

- 3.1 Claim 1 of the first auxiliary request is substantially similar to Claim 10 as granted but contains additionally the word "single" before "dough".

No distinction can be drawn, in the Board's judgement,

between the original wording "...ingredients are mixed to form **a dough...**" and the amended wording "...mixing the said ingredients to form **a single dough...**".

In fact, as submitted by the Appellants, the description of the patent in suit states that the components of the block are mixed to form **a dough which is thereafter** extruded and cut into blocks (see page 3, lines 13 to 15); therefore, a proper interpretation of the wording of the process claim in the light of the description excludes the formation of more than one dough.

Accordingly, this amendment does not introduce any limitation to the process of granted claim 10 and is therefore superfluous. This request has thus to be refused under Rule 57a EPC.

4. *Second auxiliary request*

4.1 Novelty

The claimed process of this request requires that the components of the block are mixed to form a dough which is then extruded and cut into blocks (see point IV above).

By comparison the process of document (4) requires, in example 1, that two mixtures (A) and (B) are conveyed into a coaxial extruder and the two mixtures, forming distinct phases (A) and (B), are then extruded and cut into blocks having the two distinct sections (A) and (B) (see page 6, lines 1 to 4).

Therefore, the claimed process differs from the

disclosure of document (4) insofar as **one mixture** of the essential components - anionic surfactant, chlorine bleaching agent, inorganic salt (if present) and hydrophobic liquid oily perfume - forms a dough which is extruded and cut into blocks, whilst in the prior art document the phases (A) and (B) each form each a dough, the two doughs then being combined at the extrusion point and cut into blocks which thus originate from **two different mixtures**, only phase (A) containing the four essential ingredients mentioned above (see point 1.1 above).

Therefore the Board concludes that the subject-matter of Claim 1 is novel over document (4).

#### 4.2 Inventive step

##### 4.2.1 Closest prior art and technical problem

The patent in suit, and in particular the subject-matter of claim 1 of the second auxiliary request, relates to a process for preparing a lavatory cleansing block comprising necessarily anionic surfactant, a chlorinated bleach and an oily perfume (see also page 2, lines 27 to 31).

According to the description of the patent in suit, the blocks of the prior art used under the rim of a lavatory were not able to provide a satisfactory combination of cleansing, sanitizing and deodorizing effects when flushing the toilet (page 2, lines 12 to 23).

Thus, the patent in suit suggested as the underlying technical problem the provision of a lavatory rim block

which possessed good cleansing, sanitizing and perfume-generating activity and which remained stable over a prolonged period under the humid conditions of a toilet bowl (page 2, lines 24 to 26).

Document (2), as also acknowledged by the Appellants at the oral proceedings, already provided a block which could be used under the rim of a toilet bowl and which provided good cleansing and sanitizing effect and a process for its manufacture (page 2, lines 8 to 9 and 23 to 26; page 3, lines 44 to 48).

The blocks disclosed in document (4), though providing cleansing, sanitizing and perfuming functions, were nonetheless not intended to be used under the rim of a lavatory (page 2, lines 11 to 12).

Therefore document (2), as suggested by the Appellants at the oral proceedings, is found by the Board to be the most suitable starting point for the assessment of inventive step.

The technical problem solved by the patent in suit, seen in the light of the teaching of document (2), must thus be reformulated less ambitiously as the provision of a further block to be used under the rim of a lavatory bowl having similar physical properties to the prior art as well as similar cleansing and sanitizing effect and additionally possessing a good perfuming capability.

In the light of the illustrative example of the patent in suit the Board has no reason to doubt that a block as specified in Claim 1 solved this existing technical problem.

#### 4.2.2 Evaluation of inventive step

Document (2) describes blocks, to be used under the rim of a toilet bowl, which comprised anionic surfactant, electrolytes and chlorine bleach in amounts in accordance with the ranges of the patent in suit (see page 2, lines 8 to 9 and lines 30 to 48). These blocks are prepared by a process analogous to that of the patent in suit (page 3, lines 44 to 47).

This document further suggests that it is not generally possible to incorporate dyestuffs or perfumes in this type of blocks because of the presence of the chlorine bleach (page 3, lines 37 to 38). However, the same document suggests that it is possible to incorporate ingredients of reduced water-solubility which are resistant to the chlorine bleach and can be easily identified by experiment (see page 3, lines 14 to 17 and 38 to 39).

The description also specifies that **most** of the perfumes commonly employed in lavatory cleansing blocks were subject to attack by chlorine bleaches (page 3, lines 10 to 11). This passage thus implies that there existed perfumes known to remain when subjected to chlorine attack.

Therefore, the teaching of this document cannot be considered as establishing a prejudice against the use of perfumes in general in a block containing a chlorine bleach; on the contrary, it suggests that any component (including a perfume), which could be expected to remain stable under chlorine attack, can be used in the blocks of document (2).

Stable combinations of perfuming ingredients and chlorine bleaching agents were known to the skilled person from the products disclosed in document (4), wherein the incompatible components had been separated in different phases. This document, as explained in point 1.1 above, envisaged the use of a chlorine bleach and an oily perfume such as pine oil in the same phase (see page 5), which could only suggest such a perfume was thus expected to remain stable in the presence of chlorine bleach.

Therefore, a skilled person, faced with the technical problem of supplying a good perfuming capability to the blocks of document (2), would have found it obvious to incorporate such known perfumes and, because of their known stability to chlorine bleach, would have expected no degradation of the composition and the maintenance of the other positive properties of the block.

Therefore it is the Board's finding that the subject-matter of Claim 1 of the second auxiliary request does not involve an inventive step.

Therefore this request must also be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

G. Rauh

P. Krasa