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**D E C I S I O N**  
**of 29 August 2002**

**Case Number:** T 0799/98 - 3.3.6

**Application Number:** 88201376.6

**Publication Number:** 0299561

**IPC:** C11D 3/50

**Language of the proceedings:** EN

**Title of invention:**  
Perfume and bleach compositions

**Patentee:**  
QUEST INTERNATIONAL B.V.

**Opponent:**  
PROCTER & GAMBLE EUROPEAN TECHNICAL CENTER N.V.

**Headword:**  
Perfume/UNILEVER

**Relevant legal provisions:**  
EPC Art. 54, 56

**Keyword:**  
"Novelty (yes) - no implicit disclosure"  
"Inventive step (yes) - no guidance in the prior art to select saturated perfume components"

**Decisions cited:**  
T 0021/88, T 0572/88, T 0164/92, T 0190/99

**Catchword:**  
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Case Number: T 0799/98 - 3.3.6

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.6**  
**of 29 August 2002**

**Appellant:** PROCTER & GAMBLE EUROPEAN TECHNICAL CENTER N.V.  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 15 June 1998  
rejecting the opposition filed against European  
patent No. 0 299 561 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** P. Krasa  
**Members:** G. N. C. Raths  
C. Holtz

## Summary of Facts and Submissions

- I. This appeal is from the Opposition's decision to reject the opposition against European patent No. 299 561 relating to perfume and bleach compositions.

Claim 1 of the patent as granted read:

" A bleach composition comprising an organic peracid bleach and a perfume composition comprising perfume components which do not contain alkenyl or alkynyl groups and have a PSV (Peracid Stability Value) of at least 65%, selected from the following classes:

- i) saturated alcohols
- ii) saturated esters
- iii) saturated aromatic ketones
- iv) saturated lactones
- v) saturated nitriles
- vi) saturated ethers
- vii) saturated acetals
- viii) saturated phenols
- ix) saturated hydrocarbons and
- x) saturated aromatic nitromusks

the said perfume components constituting from 0.05 to 1% by weight of the bleach composition."

- II. The opposition had been filed on the grounds of Article 100(a)(b) EPC, in particular for lack of sufficiency of disclosure, and for lack of novelty and inventive step; the notice of opposition cited, *inter alia*, the following documents:

- (1) US-A-4 289 641 and

(3) EP-A-0 214 789.

The Opposition Division found that the invention was sufficiently disclosed and, with respect to novelty, that document (1) did not anticipate the claimed subject-matter, because the examples relied on by the opponent did not contain an organic peracid.

Further, the Opposition found that document (1) was not concerned with the stability of the perfume components upon storage in the presence of a bleach and that the claimed compositions did not need a protective starch-shell as in document (3). The skilled person would not have combined the respective disclosures of these two documents since they belong to different technical fields. Therefore, the claimed subject-matter involved an inventive step.

III. The appellant (opponent) filed an appeal against this decision. It submitted, in writing and orally, that the subject-matter of Claim 1 was not novel because example 6 of document (1) disclosed a composition comprising perfume components, as described in the patent in suit, and an inorganic peracid which may be replaced by an organic peroxyacid bleach.

Further, the subject-matter of Claim 1 did not involve an inventive step in view of documents (1) and (3) for the following reasons:

- document (1) described a composition comprising a perfume component in combination with a bleach; to replace the inorganic bleach specified in the examples by an organic peroxyacid bleach was

obvious for the skilled person since document (1) disclosed its use (column 14, line 12);

- the use of a fragrance bead to overcome the unpleasant, acrid and obnoxious odour of peracid was taught by document (3).

The appellant further argued that the skilled person would have consulted document (1) as document (3) solved the problem of malodour only partially (page 17, lines 4 to 8).

With its letter dated 19 July 2002, in support of its arguments, the appellant filed the following documents:

- (6) Streschnak, Parfumerie und Kosmetik, vol. 61, 1980, 8, 285-89;
- (7) Ramsbotham, Tenside Detergents, vol. 23, 1986, 6, 325-32;
- (8) Pascale & Pantaleoni, Chemical Times & Trends, 1978, 43, 44, 46;
- (9) Dirk-Othmer, Encycolpedia of Chemical Technology, 3rd edn., vol. 17, 1982, 61.

Its arguments can be summarized as follows:

The scope of Claim 1 of the patent in suit was so broad that it comprised granular peroxy compounds. The production of bleaching compositions in granular form was however already known (document (3), page 2, lines 6 to 7). The claim allowed the fragrance to be encapsulated so that it was protected during long term

storage. Encapsulation was also already known (document (3), page 14, lines 6 to 8). Further the claim might comprise an exotherm control agent and diluents in order to stabilize the peracid. But this was already state of the art (see document (3), page 3, lines 5 to 22).

The perfumer relying on the additional cited documents, in particular on document (6), would run a routine research program to test perfumes for organic peracid stability, and thus end up with compositions comprising the perfumes specified in Claim 1 of the patent in suit and an organic peracid bleach. The subject-matter of Claim 1 would therefore not be patentable.

IV. The respondent (proprietor) refuted the arguments of the appellant. In essence it argued as follows:

Example 6 of document (1) did not anticipate the subject-matter of Claim 1 of the patent in suit since the organic peracid bleach was missing in the soap powder of example 6.

Contrary to the teaching of document (3), which should be considered as disclosing the closest prior art, the perfume component of the invention had not to be absorbed onto an inert carrier.

In view of document (3), which did not address the problem of odour during storage, the problem underlying the patent in suit was to make a bleach composition comprising an organic peracid bleach and a perfume composition comprising perfume components. It was not obvious to choose the claimed specific perfume components which were sufficiently stable in the

presence of the bleach to solve both the problem of odour during use and simultaneously the problem of odour during storage, without the need of encapsulation or remote location of perfume components.

Documents (1) and (3) could not be combined since they belong to different fields, document (1) to a deodorant detergent product and document (3) to a bleaching product.

V. Oral proceedings took place on 29 August 2002, during which the appellant referred to decisions T 21/81 and T 164/92; it relied also on document

(4) EP-A-0 147 191

which had been mentioned in the European search report. By following the teaching of document (4) a skilled person would be able to establish a screening test allowing to find suitable perfumes.

VI. The appellant (opponent) requested that the decision under appeal be set aside and that the European patent No. 299 561 be revoked.

The respondent (patentee) requested that the appeal be dismissed or, alternatively, that the patent be maintained on the basis of either of the first, second, third or fourth auxiliary requests filed on 26 July 2002.

VII. At the end of the oral proceedings the Chairman announced the decision of the Board.

## Reasons for the Decision

### 1. *Main request*

#### 1.1 Sufficiency of disclosure

The objection regarding insufficiency of disclosure was not reiterated by the appellant in the appeal proceedings. The Board endorses the conclusion of the Opposition Division which held that the requirements of Article 83 EPC were satisfied.

#### 1.2 Novelty

##### 1.2.1 The appellant contested novelty as against document (1). It agreed that in document (1) there was no example disclosing explicitly the subject-matter of Claim 1 of the patent in suit (see point I).

However, it pointed to the standard practice of the Boards of Appeal not to focus solely on examples but to take into account the whole disclosure of a document. This meant that the teaching of a cited document was not confined to the detailed information given in the examples but embraced any information in the claims and the description enabling a person skilled in the art to carry out the invention.

Turning to document (1), it submitted that, by employing any of the soap powder formulations of examples 1 to 3 with any of the deodorant compositions of examples 4 to 6 (column 20, lines 21 to 23) a skilled person would arrive at nine different compositions. This matrix of nine compositions would show the interchangeability of the different components



as well as their compatibility. It was true that the formulations of examples 1 and 2 comprised sodium perborate but there was the teaching to replace the inorganic bleach with an organic peroxyacid bleach (column 14, lines 10 to 22). Therefore, so the appellant concluded, document (1) implicitly disclosed the bleach compositions of Claim 1 of the patent in suit which, consequently, lacked novelty.

- 1.2.2 The Board cannot agree with the reasoning of the appellant.

The expression "anticipation by implicit disclosure" is dangerous as it also covers reasoning which is only relevant for inventive step. (see T 572/88, reasons No. 4, paragraph 1). When dealing with the question of novelty of the bleaching composition of the patent in suit, it has to be taken into consideration whether the specific saturated compounds (i) to (x) of Claim 1 (of the patent in suit) together with an organic peroxyacid bleach have been made available to the public either directly or implicitly as the mandatory result of a technical teaching.

Applying these considerations to document (1), the following has to be stated:

Firstly, the presence of a bleach component in the composition disclosed in document (1) was not compulsory but optional as shown by the following passages:

"Deodorant detergent products of the invention contain other detergent compositions ingredients (adjuncts), which will include at least one adjunct chosen from

detergency builders (other than soap) and bleaches."

and

"Bleaches or their precursors when employed can be used at a level of from about 1% to 45% by weight of the composition."

(column 13, lines 7 to 10 and column 14, lines 20 to 22; emphasis added).

Secondly, whereas apart from inorganic bleaches also

"...various organic peroxyacids such as peracetic acid, peradipic acid, perphthalic acid, diperphthalic acid, diperisophthalic acid, diperazelaic acid and the like."

were disclosed as such optional adjuncts (column 14, lines 11 to 14), no teaching can be found in document (1) according to which a skilled person should replace the inorganic bleaches explicitly used in the examples 1 or 2 by an organic peracid.

The Board's finding of the optional character of the bleaches in the compositions disclosed in document (1) is corroborated by the fact that the formulation of the soap powder composition of example 3 did not contain any bleach component at all.

It follows that document (1) does not contain a technical teaching according to which the skilled person would end up inevitably with a bleaching composition according to Claim 1 of the patent in suit.

Therefore, the Board decides that document (1) taken as

whole does neither explicitly nor implicitly disclose the subject-matter of Claim 1 of the patent in suit and, thus, is not prejudicial to the novelty of said subject-matter.

Therefore, the subject-matter of Claim 1 meets the requirements of Article 54(1)(2) EPC.

1.3 Inventive step

1.3.1 Claim 1 concerns a bleach composition comprising an organic peracid bleach and a perfume composition comprising specific perfume components which do not contain alkenyl or alkynyl groups and have a PSV (Peracid Stability Value) of at least 65%.

1.3.2 During oral proceedings before the Board all the parties agreed to take document (3) as the starting point for evaluating inventive step. The Board also agrees to this approach.

Document (3) discloses similar compositions comprising a dry peracid based bleaching product and, inter alia, a fragrance oil adsorbed into a water soluble carrier, for instance starch or sugar (see Claims 1 and 11). The problem underlying the technical teaching of document (3) was to improve the shelf stability of organic diperacid compounds having a tendency to undergo thermal oxidation and to remedy their defect of acrid and obnoxious odour (page 3, lines 1 to 4). The fragrances, added to impart pleasant odour to the bleaching solution, were subject to oxidation by the diperacid. To protect fragrances from oxidation it was also known in the art to encapsulate them in polymeric materials (document (3), page 14, lines 3 to 8).

According to the patent in suit there has long existed a problem in the formulation of bleaching compositions in that the effective perfuming of such compositions was difficult to achieve (page 2, lines 12 to 13). In other words one was looking for stability of the perfume, in particular stability during storage (ie prior to use) and stability during use of the bleach composition.

1.3.3 In the light of document (3), the technical problem underlying the patent in suit may be seen in the provision of an alternative bleach composition comprising a fragrance which remains stable at a commercially usable level during storage prior to use and then be available for effective delivery to the surface without being altered or destroyed by the bleach component (patent in suit, page 2, lines 12 to 15).

1.3.4 The Board considers that bleach compositions comprising the perfume components as defined in Claim 1 in an amount of 0.05 to 1% by weight of the bleach composition as well as the examples on pages 15, 16 and 17 of the patent in suit plausibly solve the technical problem as defined under point 1.3.3.

The appellant submitted that further perfume components may be present in the claimed compositions which do not meet the specification given in Claim 1. However, it submitted no evidence showing that due to the addition of further perfumes in such amounts which a skilled person would reasonably contemplate when construing the claim in a constructive manner (see T 190/99, reasons No. 2.4: "...the skilled person should rule out interpretations which are illogical or which do not

make technical sense. He should try, with synthetical propensity i.e. building up rather than tearing down, to arrive at an interpretation of the claim which is technically sensible and takes into account the whole disclosure of the patent."), the effective stable perfuming was not achieved. In the absence of such evidence the Board considers that the problem was solved over the whole range of Claim 1.

The appellant also objected that the scope of the claim embraced modes of execution of the prior art such as the use of a stabilizing agent of the bleach, eg an exotherm control agent, or the absorption of the perfume on a carrier eg on starch or sugar.

This argument cannot be accepted by the Board. Bearing in mind that the claimed subject-matter is novel (see point 1.2.2 of this decision), it is clear that the embodiments disclosed by the prior art documents do not anticipate the modes of executing according to Claim 1 of the patent in suit. If, however, the appellant's objection was intended to argue that stabilisation of the perfume is achieved by such stabilising agents only and not by the selection of the respective perfumes then again its submission was not supported by any experimental evidence. It has therefore to be dismissed.

Therefore, these objections cannot change the Board's finding that the claimed subject-matter solves the existing technical problem over the whole range of Claim 1.

- 1.3.5 The question remains to be decided whether or not the solution involves an inventive step.

- 1.3.6 Document (3) solved the problem of odour at two levels: (a) to protect the perfume composition from oxidation, it was absorbed on a carrier, eg starch or sugar; the carrier being water soluble, the perfume was released during use of the detergent composition (see page 7, lines 4 to 7); (b) to solve the odour problem during storage, a fragrance strip was affixed to the inside of the bleach package (see page 8, lines 5 to 8).

As document (3) did not disclose concrete fragrance components, it gave no guidance to the skilled person which fragrance to select as a solution to the existing technical problem.

Document (1) neither taught which fragrance components should be chosen as components of a bleaching composition since this document was rather concerned with the suppression of human body odour and, thus, directed to deodorant efficiency.

The appellant was of the opinion that the fragrance bead disclosed by document (3) helped the skilled person to arrive at the present invention. As document (3) admitted not to solve the odour-related problem completely (page 17, lines 4 to 5), the skilled person would consult document (1) which dealt with the problem of suppressing human body malodour (column 1, lines 4 and 5). Since document (1) described compositions comprising peracids and bleach stable perfume combinations, a skilled person would arrive at the perfumes as specified in Claim 1 of the patent in suit through a research programme testing stable, ie saturated, perfume components with a reasonable expectation of success.

The appellant also pointed to document (4), which concerned a bleach-stable deodorant perfume judged to be stable in the presence of sodium perborate tetrahydrate and N,N,N',N'-teraacetylene diamine (TAED) according to the Bleach Stability Test. The bleach-stable deodorant perfume had a malodour reduction value of from 0.25 to 3.0 as measured by the Malodour Reduction Test (page 4, lines 24 to 31). Such a test would be helpful to screen suitable perfume components.

A bleach composition comprising the perfume components and an organic peracid according to Claim 1 of the patent in suit would therefore be obvious as a result of mere routine screening.

In support of its argument, the appellant had referred to the decisions T 21/81 and T 164/92 which both deal with the principles for establishing the information content of a document taking into account the skilled person's common general knowledge.

- 1.3.7 These principles apply also in the present situation. In this case, however, there is no common general knowledge which would allow the skilled person to run a test programme with reliable and predictable results on the suitability of perfume components meeting the requirements of Claim 1. There is no evidence available to the Board that the malodour reduction values obtained with the perborate stability test referred to in document (4) were correlated with the PSV values defined in Claim 1 and could be extrapolated to PSV values. It was not possible to conclude from a perborate test on the compatibility of an organic peroxyacid with perfume components in so far as

malodour suppression ability in bleaching compositions was concerned. Hence, for the purpose of solving the technical problem underlying the present patent in suit, a skilled person could not infer an appropriate and reliable teaching from document (4).

- 1.3.8 The skilled person could neither deduce from document (1) the perfumes of type (i) to (x) defined in Claim 1 of the patent in suit which are all saturated compounds (criterion c), nor the two criteria, namely (a) the absence of alkenyl or alkynyl groups and (b) a PSV greater than 65%. These three criteria were compulsory. The bleach composition according to the patent in suit comprised perfume components which were (i) effective during storage prior to use and (ii) released during use.

In the Board's judgement, the skilled person would not have conceived a research programme for finding suitable perfumes in the absence of any guidance how this could be achieved. Screening would only have been possible after having decided which criteria, either (a) and (b) or (c) and (b), were to be retained: it is true that criterion (a) ie "absence of alkenyl and alkynyl groups" and criterion (c) ie "saturated" are tautologic, but nevertheless the absence of alkenyl or alkynyl groups (or the mandatory presence of saturation) does not necessarily mean that the criterion (b) relating to the PSV value is met inherently. This finding is only known with hindsight.

The Board cannot accept the appellant's argument that the PSV value of at least 65% was arbitrary since no tests had been submitted to prove that this value was not critical for solving the technical problem as



defined under 1.3.3. Even if a research programme respects a certain planning, it could not be predicted with a reasonable expectation of success that the routine testing according to such a programme would lead to the results as defined in the patent in suit.

Neither of documents (6) to (9) cited later in the proceedings by the appellant suggests the fragrance components considered as suitable in the context of the patent in suit. According to document (6) the skilled person could not rely on his chemical knowledge for predicting the stability of perfume components (page 286, left-hand column 2 to 4). This document mentioned briefly the stability criterion as a condition to be respected by the perfumer when formulating a detergent composition (page 288, summary, lines 1 to 4). Document (7) indicated in very general terms that the choice of a perfume requires a consideration of the chemical reactivity (page 326, lines 33 to 35). According to document (8) esters and ketones were not appropriate candidates (page 43, right-hand column, lines 1 to 10, bottom of middle column, and page 44, left hand column). Document (9) taught some possible oxidation reactions characteristic for peroxyacids in the presence of phenols, aromatic hydrocarbons and ketones (page 61, lines 2 to 5 from the bottom). The above disclosures do not qualify documents (6) to (9) as appropriate for suggesting the perfume components of Claim 1 of the patent in suit.

- 1.3.9 For all these reasons, the subject-matter of Claim 1 of the main request involves an inventive step and thus meets the requirements of Article 56 EPC.

The dependent Claims 2 to 7 refer to specific

embodiments of Claim 1 and derive their patentability from Claim 1.

2. *Auxiliary requests*

Since the set of Claims 1 to 7 of the main request meets the requirements of the EPC, the auxiliary requests have not to be discussed.

**Order**

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

The appeal is dismissed

The Registrar:

The Chairman:

G. Rauh

P. Krasa