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**Datasheet for the decision  
of 26 June 2007**

**Case Number:** T 0637/06 - 3.3.10

**Application Number:** 00928885.3

**Publication Number:** 1176943

**IPC:** A61K 7/46

**Language of the proceedings:** EN

**Title of invention:**  
Cosmetic compositions

**Applicant:**  
THE PROCTER & GAMBLE COMPANY

**Opponent:**

-

**Headword:**  
Cosmetic compositions/PROCTER & GAMBLE

**Relevant legal provisions:**  
EPC Art. 56, 111(1), 123(2)

**Keyword:**  
"Main request: inventive step (no) - obvious alternative"  
"Auxiliary request: remittal to first instance - fresh case"

**Decisions cited:**  
G 0010/93, T 0063/86, T 0047/90, T 0939/92

**Catchword:**

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Case Number: T 0637/06 - 3.3.10

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.10  
of 26 June 2007

**Appellant:**

THE PROCTER & GAMBLE COMPANY  
One Procter & Gamble Plaza  
Cincinnati  
Ohio 45202 (US)

**Representative:**

Wilding, Richard Alan  
Procter & Gamble Technical Centres Limited  
Patent Department  
Rusham Park  
Whitehall Lane  
Egham  
Surrey TW20 9NW (GB)

**Decision under appeal:**

Decision of the Examining Division of the  
European Patent Office posted 3 November 2005  
refusing European application No. 00928885.3  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** P. Gryczka  
**Members:** J. Mercey  
P. Schmitz

## Summary of Facts and Submissions

- I. The appeal lodged on 4 January 2006 lies from the decision of the Examining Division posted on 3 November 2005 refusing European patent application No. 00928885.3 with the European publication No. 1 176 943 and International publication No. WO 00/67719.
- II. *Inter alia* the following documents were cited in the examination proceedings:
- (1) FR-A-2 693 728 and
  - (3) Patent Abstracts of Japan, Vol. 12, No. 472 (C-551) [3319], 9th December 1998.
- III. In the appealed decision refusing the application on the ground of lack of inventive step (Article 56 EPC), the Examining Division held that document (3), which disclosed a cosmetic lotion composition comprising an aromatic volatile substance and a methylated  $\beta$ -cyclodextrin having a weight average ether substitution degree of 8 to 11, corresponding to an average degree of substitution of from 1.14 to 1.57, represented the closest prior art. The problem to be solved by the invention was to provide a fragrant cosmetic composition which had the combined advantages of an initial fragrance burst upon application as well as a long lasting fragrance effect. As solution, the application proposed a cosmetic composition containing 10% or more of ethanol and a cyclic oligosaccharide having an average degree of substitution of at least about 1.6. No improvement had been shown arising from the presence of a  $\beta$ -cyclodextrin having an average

degree of substitution of at least about 1.6 as opposed to the value of 1.57 disclosed in the closest prior art. In addition, it was well known that ethanol was used in perfumery and that cyclic oligosaccharides were soluble therein. The claimed solution was thus obvious.

IV. At the oral proceedings before the Board held on 26 June 2007, the Appellant (Applicant) submitted a main and a first auxiliary request, these requests superseding the previous requests. Claim 1 of the main request reads as follows:

"1. A cosmetic composition comprising:

(a) fragrance; and

(b) greater than 1.2%, by weight, cyclic oligosaccharide having an average degree of substitution of at least 1.6;

(c) 50% or greater of a volatile solvent selected from C<sub>1</sub>-C<sub>4</sub> alcohols and mixtures thereof;

wherein all percentages are by weight of the composition."

Claim 1 of the first auxiliary request reads:

"1. A cosmetic composition comprising:

(a) fragrance; and

(b) greater than 1.2%, by weight, cyclic oligosaccharide having an average degree of substitution of at least 1.6;

(c) a polyol having from 2 to 12 carbon atoms, preferably from 2 to 6 carbon atoms, and at least two OH groups, more preferably two terminal-OH groups;

wherein all percentages are by weight of the composition."

V. With regard to inventive step of the subject-matter of the main request, the Appellant submitted that since the cosmetic composition of present claim 1 contained more than 50% by weight of alcohol, said composition could only be a fine fragrance. Thus, the closest prior art was not the lotion of document (3) but rather a marketed hydro-alcoholic fine fragrance. At the oral proceedings before the Board, the Appellant submitted that a technical problem could not be formulated *vis-à-vis* document (3), since said document could not be regarded as a suitable starting point for the present invention. The Appellant argued that the claimed invention was nevertheless not obvious over the disclosure of document (3), since even supposing that an alcohol was a common ingredient in cosmetic compositions, in order to arrive at the claimed composition the skilled person still had to select an alcohol from innumerable other possible cosmetic ingredients, no document providing a particular incentive to choose an alcohol, let alone in the claimed amount. In addition, it could not be deduced from document (3) that cyclic oligosaccharides were soluble in an alcohol, solubility of the oligosaccharide being important for the aesthetics of the fine fragrance and to prevent spray head clogging when dispensing the composition. The subject-matter of claim 1 of the main request thus involved an inventive step.

With regard to the first auxiliary request, the Appellant submitted that the subject-matter thereof was inventive, since the incorporation of a molecular wedge, namely a polyol as defined in claim 1, into the

composition resulted in an even greater longevity and strength of odour of the fragrance. The reason for this improvement was that these polyols formed tertiary inclusion complexes with the complexed perfume material and the cyclic oligosaccharide, the stability of the formed tertiary complex being increased versus the complex formed by the fragrance material and cyclic oligosaccharide alone. The Appellant referred to page 10, lines 23 to 31 of the application as filed in this respect.

VI. The Appellant requested that the decision under appeal be set aside and a patent be granted on the basis of the main request or on the basis of the first auxiliary request, both requests filed during the oral proceedings before the Board of Appeal.

VII. At the end of the oral proceedings, the decision of the Board was announced.

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Main request*

2. *Amendments (Article 123(2) EPC)*

Claim 1 is based on the combination of original claims 1 and 10. The amount of volatile solvent of 50% or greater is disclosed on page 9, lines 15 to 16 of the application as filed. That all percentages are by

weight of the composition is disclosed on page 3, line 9 of the application as filed.

For these reasons, the Board concludes that amended claim 1 complies with the requirements of Article 123(2) EPC.

3. *Novelty*

The Board has no objections concerning the novelty of the claimed subject-matter. Since the Examining Division also did not raise objections in this respect, the Board sees no need to consider this matter in more detail.

4. *Inventive Step*

For deciding whether or not a claimed invention meets this criterion, the Boards of Appeal consistently apply the problem and solution approach, which essentially involves identifying the closest prior art, determining in the light thereof the technical problem which the claimed invention addresses and successfully solves, and examining whether or not the claimed solution to this problem is obvious for the skilled person in view of the state of the art.

- 4.1 The present application is directed to a cosmetic composition comprising a fragrance and a cyclic oligosaccharide. A similar cosmetic composition already belongs to the state of the art in that document (3), which is acknowledged in the specification of the application in suit as the starting point for the invention (cf. page 2, line 9), discloses a lotion

comprising an aromatic volatile substance such as eugenol, amyl acetate or camphor, which are all fragrances according to the present application (cf. page 5, lines 15, 18 and 25 of the application as filed). Said lotion also comprises 0.1 to 10% by weight of a methylated  $\beta$ -cyclodextrin having a weight-average ether degree of substitution of 8.0 to 11.0 which, according to the Appellant and the Examining Division, corresponds to an average degree of substitution of 1.14 to 1.57.

- 4.1.1 The Appellant argued that the claimed subject-matter was, by virtue of its high alcohol content, now restricted to a fine fragrance, and that therefore not the lotion described in document (3) but rather any well-known marketed fine fragrance was the closest state of the art.

However, the subject-matter of claim 1 of the main request is not restricted to fine fragrances, since ca. 49% by weight of the cosmetic composition is not defined, lotions being specifically described as compositions of the present invention at page 9, line 4 and page 12, line 17 of the application as filed. Furthermore, the disclosure of document (3) is silent concerning the nature of at least 88% by weight of the compositions described therein, such that the presence of an alcohol is not excluded thereby.

In addition, the aims of the present invention outlined on page 2, lines 10 to 15 of the specification of the application in suit are formulated starting from the disclosure of document (3), which addresses explicitly the suppression of the dissipation of an aromatic



volatile substance and thus also relates to the objective of the claimed invention of improving fragrance longevity (cf. page 1, lines 14 to 15, page 2, lines 10 to 11 and 20, page 3, line 6, page 14, line 18 of the application as filed).

Therefore, a marketed fine fragrance is not closer to the claimed subject-matter than the lotion according to document (3).

- 4.1.2 Thus the Board considers, in agreement with the Examining Division, that the closest prior art is the disclosure of document (3) and, hence, takes it as the starting point when assessing inventive step.
- 4.2 The Appellant did not allege that the presently claimed compositions resulted in any technical effect *vis-à-vis* those of document (3) and none is apparent to the Board. Thus in view of this state of the art, the problem underlying the present application is merely the provision a further long lasting fragrant cosmetic composition.
- 4.3 As the solution to this problem, the present application proposes a cosmetic composition as defined in claim 1 wherein the cyclic oligosaccharide has a degree of substitution of at least 1.6 and which contains 50% or greater, by weight of the composition, of a volatile solvent selected from C<sub>1</sub>-C<sub>4</sub> alcohols and mixtures thereof.
- 4.4 In view of the presence in the claimed cosmetic composition of cyclic oligosaccharides which are known to suppress the dissipation of aromatic volatile

substances (cf. document (3)), it is credible that the problem defined above is solved by the claimed composition.

4.5 Finally, it remains to be decided whether or not the proposed solution to the problem underlying the present application involves an inventive step.

4.5.1 The lower limit of the average degree of substitution of the cyclic oligosaccharide of 1.6 in present claim 1 differs only slightly from the upper limit of 1.57 disclosed in document (3). Cyclic oligosaccharides having an average degree of substitution of greater than 1.6 and their use in the field of cosmetics were already known from document (1) (cf. page 5, lines 2 to 5 and page 8, lines 22 to 27). It was thus obvious for the skilled person, seeking merely to provide a further long lasting fragrant cosmetic composition, to employ a cyclic oligosaccharide having an average degree of substitution of at least 1.6 as opposed to those having an average degree of substitution of 1.57 as described in document (3).

4.5.2 Ethanol, which is a volatile C<sub>1</sub>-C<sub>4</sub> alcohol, is a usual ingredient in fragrant cosmetic compositions and it is well known that amounts of ethanol of 50% or greater by weight of the composition are commonly used in marketed fine fragrances, as acknowledged by the Appellant itself (see point 4.1.1 above). It was thus obvious for the skilled person, who had as sole objective to provide a further long lasting fragrant cosmetic composition, to modify the composition disclosed in document (3) so that it contains 50% or greater by weight of ethanol.

4.5.3 The Board concludes from the above that it was obvious for the person skilled in the art, seeking to provide an alternative long lasting fragrant cosmetic composition to that taught by document (3), to modify it by using a cyclic oligosaccharide having an average degree of substitution of at least 1.6 instead of 1.57, together with ethanol in a concentration of 50% or greater by weight and, thereby, arrive without inventive ingenuity at a composition in accordance with claim 1 of the main request.

4.6 For the following reasons, the Board is not convinced by the Appellant's submissions in support of the presence of an inventive step.

4.6.1 The Appellant submitted that ethanol was only one of many possible alternative cosmetic ingredients that the skilled person had at his disposition when seeking an alternative to the cosmetic composition of document (3), there being no reasons why the skilled person would have selected an alcohol, let alone in an amount of at least 50% by weight, more particularly since alcohols were known to be aggressive substances which should preferably be avoided for use on the skin.

This argument is, however, in contradiction with the fact acknowledged by the Appellant itself that ethanol is a well-known ingredient used in large amounts in marketed fine fragrances. With regard to the large number of alternative cosmetic ingredients which the skilled person had at his disposition when contemplating modifying the fragrant cosmetic composition according to document (3), a mere arbitrary

choice from a host of possible solutions does not in itself involve inventive ingenuity (see e.g. decision T 939/92, OJ EPO 1996, 309, points 2.5.2 and 2.5.3 of the reasons). For this reason, this argument is rejected.

- 4.6.2 The Appellant argued that the skilled person would not have known whether or not the cyclic oligosaccharides of present claim 1 would have been soluble in a C<sub>1</sub>-C<sub>4</sub> alcohol and thus whether they were suitable to provide a composition which did not result in spray head clogging when dispensing the composition.

However, the attainment of a fragrant cosmetic composition which does not cause clogging of perfume bottle spray heads is not part of the problem to be solved by the present application (cf. point 4.2 above), such that the presence or absence of this property of solubility of the cyclic oligosaccharides in a C<sub>1</sub>-C<sub>4</sub> alcohol is irrelevant. In any case, it was known from document (1) that a cyclic oligosaccharide according to present claim 1, namely a partially methylated cyclodextrin having an average degree of substitution of 2.14, has good solubility in ethanol (cf. page 18, lines 20 to 25). Thus the Appellant's argument with regard to the solubility of the oligosaccharide in ethanol must also be rejected.

- 4.7 Therefore, the subject-matter of claim 1 represents an obvious solution to the problem underlying the present invention.

5. As a result, the Appellant's main request is not allowable as the subject-matter of claim 1 lacks an inventive step pursuant to Article 56 EPC.

*First auxiliary request*

6. *Amendments (Article 123(2) EPC)*

Claim 1 is based on the combination of original claims 1 and 11, wherein the polyol has been specified as having at least two -OH groups, more preferably two terminal -OH groups, as explicitly foreseen in original claim 11. The feature that "all percentages are by weight of the composition" is disclosed on page 3, line 9 of the application as filed.

For these reasons, the Board concludes that amended claim 1 complies with the requirements of Article 123(2) EPC.

7. *Remittal*

Having so decided, the Board has not, however, taken a decision on the whole matter, since substantial amendments have been made to independent claim 1 which amended claim was presented at the oral proceedings before the Board as the first auxiliary request and was never submitted to the first instance. The amendments leading to the fresh claim 1 according to the first auxiliary request, in particular the amendment specifying that the cosmetic composition contains a polyol, have the effect that, in particular, the assessment of novelty and inventive step has to be done on a new basis. Thus, claim 1 according to the

auxiliary request gives rise to fresh issues not yet addressed in examination proceedings constituting a "fresh case" (see e.g. decisions T 63/86, OJ EPO 1988, 224; T 47/90, OJ EPO, 1991, 486).

While Article 111(1) EPC gives the Boards of Appeal the power to decide in *ex-parte* proceedings on fresh issues where the application has been refused on other issues, proceedings before the Boards of Appeal in *ex-parte* cases are primarily concerned with examining the contested decision (see decision G 10/93, OJ EPO 1995, 172, points 4 and 5 of the reasons), fresh issues normally being left to the Examining Division to consider after a referral back, so that the Appellant has the opportunity for these to be considered without loss of an instance.

Under these circumstances, the Board considers it appropriate to exercise the power conferred on it by Article 111(1) EPC, to remit the case to the Examining Division for further prosecution.

**Order**

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

1. The decision under appeal is set aside.
  
2. The case is remitted to the department of first instance for further prosecution on the basis of claims 1 to 13 of the first auxiliary request filed during the oral proceedings before the Board of Appeal.

The Registrar:

The Chairman:

C. Moser

P. Gryczka