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**Datasheet for the decision
of 5 December 2008**

Case Number: T 0939/06 - 3.3.10

Application Number: 00939734.0

Publication Number: 1185240

IPC: A61K 7/46

Language of the proceedings: EN

Title of invention:

Anhydrous antiperspirant cream compositions having improved
perfume longevity

Applicant:

THE PROCTER & GAMBLE COMPANY

Opponent:

-

Headword:

Antiperspirant cream/PROCTER & GAMBLE

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (no) - obvious solution"

Decisions cited:

T 0939/92

Catchword:

-



Case Number: T 0939/06 - 3.3.10

D E C I S I O N
of the Technical Board of Appeal 3.3.10
of 5 December 2008

Appellant:

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

Representative:

Hampton, Matthew
Howrey LLP
Rembrandt Tower, 31st Floor
Amstelplein 1
NL-1096 HA Amsterdam (NL)

Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 16 March 2006
refusing European application No. 00939734.0
pursuant to Article 97(1) EPC 1973.

Composition of the Board:

Chairman: R. Freimuth
Members: J.-C. Schmid
D. S. Rogers

Summary of Facts and Submissions

I. The appeal lodged on 17 May 2006 lies from the decision of the Examining Division dated 16 March 2006 refusing European patent application No. 00939734.0 with International publication No. WO-A-00/76472.

II. The decision under appeal was based on claims 1 to 10 submitted by the Appellant on 28 October 2005. Claim 1 read as follows:

"1. An anhydrous antiperspirant cream composition comprising:

(a) antiperspirant active;

(b) from about 10% to about 90% by weight of an anhydrous liquid carrier;

wherein the composition has a penetration force value of from 75 gram-force to about 500 gram-force, and contains less than 2% by weight of free or added water characterised in that the composition further comprises (c) a perfume/cyclodextrin inclusion complex, the cyclodextrin being beta-cyclodextrin."

III. *Inter alia* the following documents were cited in the examination proceedings:

(1) WO-A-98/56340 and

(2) WO-A-98/51185.

In the appealed decision refusing the application on the ground of lack of inventive step (Article 56 EPC) the Examining Division held that document (2), which disclosed skin compositions having a consistency reflected by a penetration force value of from 75 to

500 gram force and containing perfume, was the closest prior art. In view of this document, the technical problem to be solved was to provide a skin composition having improved perfume longevity. Document (1) taught to add perfume/beta-cyclodextrin inclusion complexes into deodorant compositions in order to improve perfume longevity. The skilled person facing the problem of improving perfume longevity in the antiperspirant cream of document (2) would consider the solution taught by document (1) and, thus, would add perfume/cyclodextrin inclusion complexes into the antiperspirant cream of document (2) in order to solve the problem.

- IV. With letter dated 24 October 2008, the Appellant filed an auxiliary request. Claim 1 of that auxiliary request differed from claim 1 of the main request essentially by adding the feature that "at least 90% of all the perfumes present in said complex are highly volatile perfume materials having a boiling point less than or equal to 250°C".
- V. The Appellant submitted that the claimed subject-matter involved an inventive step since the skilled person would not turn to document (1) which advised against using antiperspirant in the compositions. The parts of the body where the compositions according to document (1) were to be applied were not the same. Furthermore this document was concerned with powder compositions only. The skilled person would not have known whether or not the perfume/beta-cyclodextrin inclusion complexes disclosed in document (1) would have been suitable in creams.

Even if the skilled person considered document (1), he would not have distilled from that document the teaching relating to complexed beta-cyclodextrin, since there was no reason to ignore the mandatory presence of uncomplexed cyclodextrin and alternatives indicated in that document, i.e. of other encapsulation methods. Furthermore beta-cyclodextrin was "better" than other cyclodextrins.

As regards auxiliary request 1, document (1) taught that the encapsulated perfume needed only to comprise 50% of the combination of volatile perfumes with non-volatile components. In all examples of document (1) the encapsulated perfumes comprised much less than 90% of volatile perfumes.

- VI. The Appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 10 filed on 28 October 2005 (main request) or subsidiarily on the basis of claim 1 to 10 of the auxiliary request filed on 24 October 2008.
- VII. At the end of the oral proceedings held on 5 December 2008 the decision of the Board was announced.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Inventive step*

In accordance with the "problem-solution approach" applied by the Boards of Appeal to assess inventive step on an objective basis, it is in particular necessary to establish the closest state of the art, to determine in the light thereof the technical problem which the invention addresses and successfully solves, and to examine the obviousness of the claimed solution to this problem in view of the state of the art.

2.1 The Board considers, in agreement with the Examining Division and the Appellant, that document (2) represents the closest state of the art, and, hence, takes it as the starting point in the assessment of inventive step. Document (2) discloses an antiperspirant cream composition having a penetration force value of from about 75 to about 500 gram force comprising an antiperspirant active and from about 10 to about 80% by weight of a liquid carrier (see claim 1). The liquid carrier is preferably anhydrous (see page 23, line 22) and the antiperspirant cream composition contains less than 2% by weight of free or added water (see page 5, lines 26 to 30). The compositions of document (2) comprise optional components such as perfumes (see page 26, lines 12 to 15, examples).

2.2 In view of this state of the art, the Appellant submitted during the oral proceedings that the technical problem underlying the patent in suit, was

the provision of an anhydrous antiperspirant cream composition that has improved perfume longevity.

- 2.3 As the solution to this problem, the present application proposes an anhydrous antiperspirant cream composition as defined in claim 1 characterized by the presence of a perfume/beta-cyclodextrin inclusion complex.
- 2.4 Although the application contains no comparative data showing an improved perfume longevity with respect to compositions of document (2), the Board is nevertheless satisfied that the claimed compositions solve this problem on account of the presence of the perfume/beta-cyclodextrin inclusion complexes which are known to provide better longevity of the perfume by preventing its premature loss to the atmosphere (see document (1), page 5, lines 32 to 33).
- 2.5 It remains to be decided whether or not the proposed solution to the objective technical problem, namely the compositions according to claim 1, is obvious in view of the state of the art.

When starting from the compositions known from document (2), it is a matter of course that the person skilled in the art seeking to improve perfume longevity would turn his attention to that prior art in the same technical field, i.e. that of perfumed body compositions, just dealing with the same technical problem. As a skilled person he would be struck by document (1) which is directed to perfumed cosmetic compositions and teaches that encapsulating perfume helps prevent premature loss of the perfume composition

to the atmosphere (see page 5, lines 32 to 33). As examples of encapsulated perfumes there are listed cyclodextrin/perfume ingredient inclusion complexes (see the line bridging pages 5 and 6), which complexes are preferred (page 6, line 7), in particular a beta-cyclodextrin/perfume complex (see page 6, line 10).

The Board concludes from the above that the state of the art represented by document (1) gives the person skilled in the art a clear incentive on how to solve the problem underlying the patent in suit as defined in point 2.2 above of providing improved perfume longevity, namely by adding into the compositions known from the closest prior art document (2), the particular beta-cyclodextrin/perfume complexes known from document (1) thereby arriving at the claimed compositions, i.e. the solution proposed by the application. In the Board's judgment, it was obvious to try to follow the avenue indicated in the state of the art without involving any inventive ingenuity. For these reasons, the subject-matter of claim 1 lacks the required inventive step.

2.5.1 The Appellant submitted that the skilled person would be deterred from considering document (1) when striving for a solution to the problem underlying the application. In support, he pointed to the second full paragraph of page 2 of document (1) advising against using antiperspirant.

However, this paragraph concerns some background art of document (1) and does not form part of the teaching of that document, which on the contrary encompasses the presence of antiperspirants (see claim 7 and page 11, lines 27 to 31).

The Appellant further argued that the compositions of document (1) were intended to be applied to occluded skin areas, where no antiperspirants were desired. In support to its argumentation, it referred to the third full paragraph of page 2 of document (1) which enumerates particular parts of the body.

As a matter of fact, this section starts by indicating that an enhanced body odour can be "provided to the entire body by applying the composition". Accordingly, nothing is reported in that section of document (1) from which the Board could reasonably conclude that neither the compositions of document (1) would be unsuited for being applied to some part of the body, nor that the skilled person seeking to improve the perfume longevity of the cream of document (2) has been deterred from considering document (1).

Last, the Appellant argued that the skilled person would not consider document (1), since this document relates to a very different type of odour treatment composition, namely a powder composition rather than a cream.

However, the compositions of document (1) are not restricted to powder compositions. Claim 1 of document (1) is not restricted to a particular type of composition and thus embraces creams. Furthermore the problem to be solved concerns the longevity of the perfume, which problem is unrelated to the type of the composition. Thus the Appellant's argument with regard to the powder form must also be rejected.

Hence, the Appellant's arguments do not convince the Board that the person skilled in the art would have been deterred from considering document (1) in order to solve the problem underlying the application, all the more because document (1) belongs to the same technical field.

2.5.2 The Appellant submitted that encapsulation by cyclodextrin was only one of the possible encapsulation alternatives listed in document (1) that the skilled person had at its disposition when seeking to encapsulate perfumes, there being no reasons why the skilled person would have selected cyclodextrin, let alone beta-cyclodextrin. Furthermore uncomplexed cyclodextrin was additionally present.

With regard to the number of alternatives which the skilled person had at its disposition when contemplating adding encapsulated perfume into the cosmetic composition according to document (2), 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). Furthermore, document (1) teaches that encapsulation with cyclodextrins is preferred (page 6, line 7) whereas the beta-cyclodextrin/perfume complex is specifically indicated on line 4 of this section, there being no teaching of a link to the presence of uncomplexed cyclodextrin.

The Appellant furthermore alleged that beta-cyclodextrin was "better" than other cyclodextrins and therefore was a purposive choice.

The Appellant, however, did not provide any comparative data showing that beta-cyclodextrin was "better" compared to the other cyclodextrins. Accordingly, in the absence of any substantiating facts and corroborating evidence, the Board considers the Appellant's allegation as a mere speculation.

The choice of beta-cyclodextrin is therefore neither critical nor purposive for solving the objective problem underlying the application, since no technical effect has been shown to be associated with that particular cyclodextrin. The act of arbitrarily picking out a cyclodextrin specified in document (1) without providing a particular technical effect is within the routine activity of the skilled person.

- 2.6 Therefore, the subject-matter of claim 1 represents an obvious solution to the problem underlying the present invention. Hence, the subject-matter claim 1 does not involve an inventive step (Article 56 EPC).

Auxiliary request 1

3. Claim 1 of the auxiliary request differs from that according to the main request by adding the feature that "at least 90% of all the perfumes present in said complex are highly volatile perfume materials having a boiling point less than or equal to 250°C", which feature is disclosed on page 10, lines 9 to 16 of the application as filed.

This feature is already taught by document (1) on page 7, second paragraph which indicates that at least about 80% by weight of encapsulated perfume is composed

of perfume ingredients having a boiling point of less than preferably 250°C. The fact that none of the exemplified perfumed compositions of document (1) comprise the volatile perfumes above this threshold, as argued by the Appellant, is irrelevant since the teaching of document (1) is not limited to its examples.

The required by weight threshold value of volatile perfume of at least 90% in present claim 1 is included within the ambit of document (1) which specifies a threshold of at least 80%. The indication of a specific narrower range cannot provide the claimed compositions with any inventive ingenuity as no particular technical effect has been shown or even submitted to be linked therewith. Thus this numerical limitation is arbitrary and, therefore, within the routine activity of a skilled person.

Therefore, the considerations having regard to the assessment of inventive step given in point 2.5 above and the conclusion drawn in point 2.6 above with respect to the main request also apply to the auxiliary request, i.e. the subject-matter claimed is obvious and does not involve an inventive step (Article 56 EPC).

In these circumstances, the Respondent's auxiliary request is not allowable for lack of inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

C. Rodríguez Rodríguez

R. Freimuth