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**Datasheet for the decision
of 17 May 2011**

Case Number: T 0277/07 - 3.3.07

Application Number: 97954737.9

Publication Number: 0966258

IPC: A61K 7/32

Language of the proceedings: EN

Title of invention:

Antiperspirant or deodorant composition

Patentee:

Unilever PLC, et al

Opponent:

L'OREAL

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 123(2)

RPBA Art. 13

Keyword:

"Novelty - main request and second auxiliary request (no)"

"Inventive step - first auxiliary request (no)"

"Admissibility - third auxiliary request (yes)"

"Inventive step - third auxiliary request (yes)"

Decisions cited:

T 1110/03

Catchword:

-



Case Number: T 0277/07 - 3.3.07

DECISION
of the Technical Board of Appeal 3.3.07
of 17 May 2011

Appellants:
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
19 December 2006 concerning maintenance of
European patent No. 0966258 in amended form.

Composition of the Board:

Chairman: J. Riolo
Members: D. Semino
M.-B. Tardo-Dino

Summary of Facts and Submissions

I. The appeals of the patent proprietors and of the opponents lie against the decision of the Opposition Division to maintain European patent No. 0 966 258 in amended form announced on 8 November 2006. The granted patent comprised 14 claims and included independent product claim 1 and two independent process claims (claims 13 and 14).

II. A notice of opposition was filed against the granted patent requesting revocation of the patent in its entirety on the grounds of Article 100(a) EPC (lack of novelty and lack of an inventive step) and Article 100(b) EPC (insufficient disclosure).

III. The decision under appeal was *inter alia* supported by the following documents:

D1: Cosmetics & Toiletries, Vol. 95, July 1980, pages 42-43

D2: Cosmetics & Toiletries, Vol. 105, April 1990, p. 76

D3: WO-A-96/35408

D5: US-A-4 781 917

D6: International Cosmetic Ingredient Dictionary and Handbook, Eighth Edition 2000, Vol. 2, page 971

D8: International Cosmetic Ingredient Dictionary and Handbook, Eighth Edition 2000, Vol. 2, pages 1773-1774

D9: International Cosmetic Ingredient Dictionary and Handbook, Eighth Edition 2000, Vol. 2, pages 1761

It was based on a main request and a first auxiliary request both filed during the oral proceedings on 8 November 2006, wherein product claim 1 according to

those requests had the following wording (amendments with respect to claim 1 as granted are in bold, deletions in strike-through):

Main request

"1. A substantially anhydrous stick antiperspirant or deodorant composition having less than 2% by weight water and comprising a particulate antiperspirant or deodorant active, a carrier for the active and a moisturising cream comprising one or more **hydroxyl-containing** humectants, which ~~comprise at least one hydroxyl group and~~ **humectant is bound to** a perfume carrier material."

First auxiliary request

"1. A substantially anhydrous stick antiperspirant or deodorant composition having less than 2% by weight water and comprising a particulate antiperspirant or deodorant active, a carrier for the active and a moisturising cream comprising one or more **hydroxyl-containing** humectants, which ~~comprise at least one hydroxyl group and~~ **humectant is bound to** a perfume carrier material **and is selected from sorbitol, glycerol, ethylene glycol or propylene glycol or mixtures thereof.**"

IV. According to the reasons of that decision:

- (a) The comparative tests filed by the opponents on 30 October 2006, i.e. 9 days before the oral proceedings, were filed too late to allow a

reaction of the patent proprietors and were therefore to be disregarded.

- (b) The term "bound to" added to claim 1 of the main request with reference to the relationship between the humectant and the perfume carrier material was based on the original application as filed and, despite being very broad, was clear and implied some kind of interaction between the two ingredients.
- (c) The subject-matter of claim 1 according to the main request was not novel with respect to documents D1 and D2, which disclosed compositions including all the ingredients as claimed. In particular, PEG-20 and PPG-3 myristyl ether contained in the relevant compositions of D1 and D2 respectively were to be considered as hydroxyl-containing humectants and some kind of binding of the humectants to the perfume carrier material could not be avoided as a result of the mixing which took place in the preparation of the compositions.
- (d) The claims according to the first auxiliary request were based on the original application as filed, were novel in view of the choice of the specific humectants and were inventive, when starting from any of D1 or D2 as the closest prior art, since there was no hint in the prior art that the humectants of D1 or D2 had to be replaced with one of the specific humectants in order to avoid grit formation. Even the less favourable

embodiments covered by the claims were non-obvious alternatives to the compositions of D1 or D2.

V. The patent proprietors appealed that decision. With the statement setting out their grounds of appeal they went back to the patent as granted as main request, renamed their main request in opposition as alternative request A and their first auxiliary request in opposition as alternative request C and filed a further request as alternative request B. Product claim 1 according to alternative request B had the following wording (amendments with respect to claim 1 as granted are in bold, deletions in strike-through):

"1. A substantially anhydrous stick antiperspirant or deodorant composition having less than 2% by weight water and comprising a particulate antiperspirant or deodorant active, a carrier for the active and a moisturising cream comprising one or more **hydroxyl-containing** humectants, which ~~comprise at least one hydroxyl group and~~ **humectant is bound to** a perfume carrier material **by premixing them in a liquid carrier before addition of the antiperspirant active.**"

VI. Also the opponents appealed that decision. In the statement setting out their grounds of appeal they additionally cited document D10 (US-A-2 889 253) and mentioned the comparative tests filed on 30 October 2006, which were disregarded by the opposition division.

VII. At the oral proceedings held on 17 May 2011, the patent proprietors withdrew their request to maintain the patent as granted and reordered their requests on file, presenting as main request their main request in

oppositions proceedings (indicated as alternative request A in the statement setting out the grounds of appeal), as first auxiliary request their first auxiliary request in opposition proceedings (indicated as alternative request C in the statement setting out the grounds of appeal) and as second auxiliary request alternative request B filed with the statement setting out the grounds of appeal. In addition they filed an auxiliary request D as their third auxiliary request. Auxiliary request D included only two independent process claims which had the following wording (amendments with respect to claims 13 and 14 as granted are in bold):

"1. A process for manufacturing a substantially anhydrous antiperspirant stick having less than 2% by weight water and comprising a particulate antiperspirant active, a liquid carrier, a structurant and a humectant **which comprises sorbitol, glycerol, ethylene glycol or propylene glycol or mixtures thereof**, comprising:

- blending together under a shear of at least 1500 sec^{-1} the liquid carrier, the humectant and the perfume carrier;
- adding the structurant to the blend;
- heating the composition until the structurant has melted;
- adding the antiperspirant active and all other non-fragrance components of the composition;
- cooling the composition and adding any fragrance; and
- casting the composition."

"2. A process for manufacturing a substantially anhydrous antiperspirant stick having less than 2% by

weight water and comprising a particulate antiperspirant active, a liquid carrier, a structurant and a humectant **which comprises sorbitol, glycerol, ethylene glycol or propylene glycol or mixtures thereof**, comprising:

- heating and blending together under a shear of at least 1500 sec^{-1} the liquid carrier, the humectant, the perfume carrier, and the structurant;
- adding the antiperspirant active and all other non-fragrance components of the composition;
- cooling the composition and adding any fragrance; and
- casting the composition."

VIII. The arguments of the appellant-patent proprietors can be summarised as follows:

Main request - novelty

- (a) The composition of example A of D1 did not anticipate the claimed one, as it did not contain a hydroxyl-containing humectant bound to a perfume carrier material. The component PEG-20 was not disclosed as a humectant in D1 and did not act as a moisturiser in the composition. The indication of PEG-20 as a humectant in D6 was not relevant, since D6 was late published. Moreover, while a broad interpretation of the term "bound" was correct, it could not go beyond its clear meaning. In particular, the order of addition and mixing of the ingredients of the composition of example A of D1, wherein PEG-20 was firstly mixed with the particulate antiperspirant and silica was added only at the end, implied that PEG-20 was swollen by the antiperspirant and was not available for

any kind of binding to the silica. The same considerations applied to a composition disclosed in D2. The hydroxyl-containing ingredient PPG-3 myristyl ether was not a humectant and was not bound to the silica as a consequence of the order of addition and mixing of the ingredients.

First auxiliary request - inventive step

- (b) D1, which was the closest prior art among the available documents, was not related to the problem of the patent in suit, namely the reduction of grittiness in anhydrous antiperspirant compositions containing a particulate antiperspirant and a hydroxyl-containing humectant. It disclosed in example A a composition which differed from the claimed one not only in the choice of the specific humectants, but also in the method of preparation, which had an impact on the product as shown by example 3 of the patent in suit. The first embodiment of example 3, which did not fall under the scope of claim 1, showed that, if the humectant was not bound to the perfume carrier material, the product was gritty. Instead, if a bond was present as according to the second embodiment of example 3, no grittiness appeared. Since the specific mixing and homogenisation process of the second embodiment of example 3 was only a possibility of obtaining a bond between the humectant and the perfume carrier material, no further limitation to the specific process features was necessary and the problem was solved within the whole breadth of the claim. None of the available documents hinted

at the proposed solution. In particular, the compositions of D10, which included glycerol, but also a large amount of water, and those of D5, which had an antiperspirant active in form of a solution, were totally different from the claimed one and had nothing to do with the problem to be solved. Also in D3 the sorbitol was not pre-mixed with the perfume carrier before the antiperspirant was added to the composition. D8 and D9 disclosed only lists of humectants and did not give any further information. In view of this, the presence of an inventive step had to be acknowledged.

Second auxiliary request - novelty

- (c) The specification of the premixing step indicated a means of achieving a bond between the humectant and the perfume carrier material and preventing interaction between the humectant and the particulate antiperspirant, thereby resulting in a clear difference between the claimed product and the ones of D1 and D2, in which no premixing took place. The premixing step was sufficient in itself to achieve the effect, since what was crucial was the order of addition of the ingredients. Instead, the specific combination of the premixing step with an homogenisation at high shear was nothing more than a possibility of putting into practice the preparation of the composition.

Third auxiliary request - admissibility, amendments and inventive step

- (d) The claims of the third auxiliary request corresponded to claims 12 and 13 of the request allowed by the opposition division and concerned processes containing the key features of the invention as resulting from the discussion on the product claims and in view of the broad interpretation of the term "bound" by the Board. In view of these considerations, they should be admitted. With respect to granted claims 13 and 14 they contained a single amendment concerning the limitation to four specific humectants as disclosed on page 4 of the originally application, so that the requirements of Article 123(2) EPC were met.
- (e) The processes of claims 1 and 2 of the third auxiliary request differed from the process for manufacturing the composition of example A of D1 in that the order of addition of the ingredients was completely different and included a preliminary blending of the humectant, the perfume carrier and the liquid carrier under a shear rate of at least 1500 sec^{-1} . Example 3 demonstrated that when glycerol was chosen as a humectant a smooth composition was obtained by means of these process measures, while with a different order of addition of the ingredients the product was gritty. Since the results could be extrapolated to the other listed humectants, which, being polyols with short molecular chains, had a chemical structure similar to the one of glycerol, the problem of developing a process to produce an antiperspirant composition with reduced grittiness could be considered as solved over the whole breadth of the claims. The

tests of the opponents showed that the problem was not there for the product of D1 containing PEG-20. Moreover, there was no hint in the prior art that the order of addition of the ingredients and the mixing measures could have an influence on the smoothness of the product. For these reasons, the claimed processes were inventive.

IX. The arguments of the appellant-opponents can be summarised as follows:

Main request - novelty

- (a) The composition of example A of D1 was an anhydrous antiperspirant stick which contained all ingredients of the product of claim 1 of the main request. PEG-20 in particular was a hydroxyl-containing humectant in agreement with the disclosure of the patent in suit, which mentioned polyols and alcohols as belonging to the class of hydroxyl-containing humectants, and as confirmed by D6. The term "bound" had to be interpreted in a broad way and included all sorts of possible interactions between the humectant and the perfume carrier material. Since some kind of interaction was necessarily there between the PEG-20 (in particular its OH groups) and the silica, which were both present in the mixture, no difference between the non gritty composition of example A of D1 and the product of claim 1 could be acknowledged. The same arguments were valid with respect to the composition of the example of D2 which included PPG-3 myristyl ether as humectant.

First auxiliary request - inventive step

- (b) The composition of example A of D1 differed from the composition of claim 1 according to the first auxiliary request only in that it contained a different humectant. No further difference could be attributed to the bond between the humectant and the perfume carrier material, since some kind of interaction between the two was inevitably present. It could not be acknowledged that the claimed product solved the problem of avoiding grittiness, since due to the breadth of the term "bound" it included both smooth and gritty embodiments, as shown by the first and second embodiments of example 3 of the patent in suit, which were both covered by claim 1 according to the first auxiliary request. Moreover, the composition of D1 was already not gritty, as shown by the tests of the opponents. The problem to be solved could therefore only be considered as that of finding an alternative antiperspirant stick composition. The use of sorbitol, glycerol, ethylene glycol or propylene glycol as humectant in antiperspirant composition was known from D10, D3 and D5 and also confirmed by an international cosmetic handbook (as shown in D8 and D9), so that the skilled person would add any of them to the composition of example A of D1 without any inventive activity.

Second auxiliary request - novelty

- (c) No proof was available that the added process feature, namely the premixing of the humectant and the perfume carrier material in a liquid carrier before the addition of the antiperspirant active, implied a difference in the resulting product. The successful tests in the patent in suit related only to a very specific process including a high shear homogenisation step according to the second embodiment of example 3 and did not support a product difference as a result of a simple undefined premixing. Since the burden of proof that a process feature resulted in a difference in the manufactured product lay with the proprietors, novelty of the product of claim 1 according to the second auxiliary request could not be acknowledged.

Third auxiliary request - admissibility, amendments and inventive step

- (d) The third auxiliary request, which was filed during the oral proceedings before the Board, was late filed and could only be admitted if it clearly overcame all objections, which was not the case in view of the amendments with respect to the granted claims. In particular, there was no basis in the original application for combining the specific humectants with the specific processes of granted claims 13 and 14.
- (e) The processes of claims 1 and 2 according to the third auxiliary request differed from the method of preparation of the composition of example A of

D1 in that specific humectants and a specific order of the mixing steps had been chosen. Since the examples in the patent in suit showed the presence of an effect on the smoothness of the composition only for one of the listed humectants, namely glycerol, and the composition of example A of D1 itself was not gritty, no improvement could be acknowledged over the whole breadth of the claims and the problem to be solved could only be seen in the provision of an alternative process. Neither the inclusion of known humectants, nor the choice of an arbitrary order of the mixing steps could justify the presence of an inventive activity.

- X. The appellant-patent proprietors requested that the decision under appeal be set aside and the patent be maintained in the basis of the main request corresponding to the request filed on 8 November 2006 as main request and indicated as alternative request A in the statement of grounds (claims 1-14), or alternatively on the basis of the first auxiliary request (claims 1-13) corresponding to the request allowed by the opposition division filed on 8 November 2006 and indicated as alternative request C in the statement of grounds or the second auxiliary request (claims 1-14) corresponding to alternative request B filed with the statement of grounds, or the third auxiliary request (auxiliary request D, claims 1 and 2) as submitted during the oral proceedings.
- XI. The appellant-opponents requested that the decision under appeal be set aside and the European patent be revoked.

Reasons for the Decision

1. The appeals are admissible
2. *Main request - novelty*
 - 2.1 Document D1 discloses a suspension type antiperspirant stick comprising aluminium chlorohydrate (Micro-Dry Ultrafine), stearyl alcohol, glyceryl stearate and PEG-100 stearate, talc, PEG-20, silica (Cab-O-Sil M5), cyclomethicone and perfume (page 43, left column, composition A).
 - 2.2 The stick is prepared by adding cyclomethicone to a flask, heating to 65°C, adding glyceryl stearate and PEG-100 stearate, and stirring until a solution is obtained; adding PEG-20 and stirring until it is dissolved maintaining the temperature at 65°C; adding stearyl alcohol slowly, maintaining the temperature at 65°C; adding aluminium chlorohydrate and stirring for 5 minutes; adding talc and stirring for 5 minutes; adding silica and stirring for 15 minutes; adding perfume; stirring at slow stirring rate, allowing to cool at 55°C and pouring into stick casing (page 43, left column, composition A, procedure).
 - 2.3 It has not been disputed that the stick of D1 is anhydrous (no water is present in the composition), that aluminium chlorohydrate (Micro-Dry Ultrafine) is a particulate antiperspirant, that stearyl alcohol and cyclomethicone act as a carrier for the active (see also paragraphs [0031]-[0035] in the patent in suit) and that silica (Cab-O-Sil M5) is a perfume carrier

material (see also paragraph [0028] of the patent in suit).

2.4 In order to arrive at a conclusion on novelty for claim 1 of the main request it needs therefore to be determined whether the stick also includes a moisturising cream comprising a hydroxyl-containing humectants, which is bound to the perfume carrier material. Since the purpose of the moisturising cream is that of acting as humectant (see paragraph [0023] of the patent in suit) and no further conditions are given for the cream, it is sufficient for the disputed feature to be met that the stick contains a hydroxyl-containing humectants bound to a perfume carrier material.

2.5 PEG-20 is the polymer of ethylene oxide that conforms generally to the formula $H(OCH_2CH_2)_nOH$ where n has an average value of 20 (D6, PEG-20, Definition). It belongs, due to the presence of the hydroxyl, to the class of hygroscopic agents (polyols and alcohols) which can act as humectants according to the patent in suit (paragraph [0015]), as confirmed by D6 (PEG-20, Functions) and D9 (Humectants, second column of the list, line 14). The Board is aware that D6 and D9 belong to a late published version of a cosmetic dictionary, but it considers it appropriate to use them as evidence of what the product PEG-20 used in the prior art document D1 actually is and as a confirmation of a function which the product itself can exercise (in line with T 1110/03, OJ EPO 2005, 302, see reasons, point 2). The definition of PEG-20 was moreover not contested by the appellant-patent proprietors.

- 2.6 The term "bound to" with reference to the humectant and the perfume carrier material implies some kind of unspecified relationship between the two components. The feature is therefore met if any kind of interaction between the two ingredients is present. This is in line with the meaning given to the term in the patent in suit (paragraph [0028]), which specifies that any sort of chemical or physical interaction between the two substances is included.
- 2.7 As a consequence of the mixing and stirring of all the ingredients of the composition of D1 (see point 2.2, above), they are intimately mixed and some interaction exists between all of them, including between PEG-20 and silica. The allegation of the patent proprietors that some sort of segregation of PEG-20 exists, which does not allow any sort of interaction with silica as a result of the mixing of PEG-20 with the aluminium chlorohydrate before silica is added, is not supported by evidence that this is indeed the case. Since any party bears the burden of proof of its own allegations, in the absence of evidence the point of view of the patent proprietors cannot be accepted.
- 2.8 For these reasons, the Board comes to the conclusion that the stick composition of example A of D1 contains also a hydroxyl-containing humectant bound to a perfume carrier material. Example A of D1 in the light of the analysis above anticipates therefore the stick of claim 1 of the main request, which is thus not novel.

3. *First auxiliary request - novelty and inventive step*

3.1 Claim 1 of the first auxiliary request differs from claim 1 of the main request only in that it is specified that the humectant bound to a perfume carrier material "is selected from sorbitol, glycerol, ethylene glycol or propylene glycol or mixtures thereof". The composition of example A of D1 does not contain any of sorbitol, glycerol, ethylene glycol or propylene glycol, so that novelty with respect to D1 is acknowledged. Similar arguments are valid with respect to D2, whose antiperspirant sticks do not contain any of the listed humectants (see in particular page 76, right column, third antiperspirant stick). The stick of claim 1 of the first auxiliary request is therefore novel.

3.2 The composition of example A of D1 has been considered by the opposition division and by both parties as the closest prior art. The Board sees no reason to deviate from this choice.

3.3 The technical problem according to the patent in suit is to provide a substantially anhydrous stick antiperspirant composition "which has excellent antiperspirant efficacy, excellent cosmetics and aesthetics such as comfort in use and smoothness on application" (paragraph [0009]). In particular the incorporation of a perfume carrier material which can interact with the humectant "prevents the stick composition from becoming gritty during or shortly after manufacture, and as such losing the superior aesthetic properties such as smoothness on application and comfort on use which are obtained by the inclusion

of the moisturising cream" (paragraphs [0017] and [0018]).

- 3.4 The available evidence needs to be evaluated in order to check whether the posed problem has effectively been solved by the solution proposed in claim 1 of the first auxiliary request.
- 3.5 Example 3 of the patent in suit (paragraphs [0054]-[0057]) concerns two antiperspirant sticks with identical compositions, including among others glycerol and silica. The first stick was manufactured according to the method of example 2, namely by melting the waxes of the composition in the liquids, adding slowly the particulate ingredients (including the silica) while stirring and casting the molten composition into a stick (paragraph [0052]). The second stick was manufactured by premixing the humectant, the perfume carrier and the solvent carrier at high shear using a homogeniser device with a rotor stator system, ensuring that the mixture passes through a high shear zone with a minimum shear threshold of 1500 sec^{-1} , melting the waxes in the mixture, adding slowly the further particulate ingredient while stirring and casting the molten composition into a stick (paragraph [0056]). The first stick was found to be gritty giving unacceptable in-use properties, including uncomfortable application (abrasion of the skin) (paragraph [0055]), while the second stick was found to have good texture (smooth), good cosmetic and aesthetic properties such as comfort in use, smoothness on application and non-sting on application, and gave good wetness and odour control (paragraph [0057]).

3.6 Both the first and the second stick of example 3 fall, however, under the scope of protection of claim 1 of the first auxiliary request, since the claim does not contain any feature which allows to exclude the first stick of example 3. In particular, due to the stirring of all components of the mixture, also in the first stick of example 3 the humectant is to be considered as bound to the perfume carrier material for the same reasons as detailed for the stick of D1 (see points 2.6 and 2.7, above). This means that both sticks with favourable cosmetic properties in terms of smoothness on application and sticks which are gritty and uncomfortable on application are covered by the scope of the claim.

3.7 In addition, the comparative tests filed by the opponents on 30 October 2006 show that a stick manufactured according to example A of D1 is found not to be gritty by test users. The Board sees no reason to disregard these tests in appeal proceedings, even if they were disregarded by the opposition division mainly on the basis that they were filed only 9 days before the oral proceedings before it, so as not to allow the patent proprietors with a fair opportunity to react. The reasons thereof are that they were mentioned in the statement setting out the grounds of the appeal of the opponents, they were not contested by the patent proprietors and they were cited by both parties in their submissions, which means that the main ground for their refusal has now disappeared.

3.8 In view of the tests available, it can be concluded that the advantages mentioned in the patent in suit are not obtained over the whole breadth of the claim and

that claim 1 of the first auxiliary request covers embodiments which are even worse than those of the closest prior art in terms of smoothness on application and comfort on use. Under such circumstances, the problem to be solved with respect to D1 as closest prior art can only be seen in the provision of a further antiperspirant stick composition.

- 3.9 The use of sorbitol, glycerol, ethylene glycol and propylene glycol as humectants in antiperspirant stick compositions is known e.g. from D10 (column 2, lines 15-18 and 45-47; column 3, lines 4-5). In this respect it is not relevant that D10 does not mention the issue of grittiness, nor that the compositions of D10 are different from the claimed ones in other respects, since in order to solve the problem of providing further antiperspirant stick compositions, any suggestion of possible ingredients would be taken into account by the person skilled in the art.
- 3.10 Therefore, the skilled person, looking for further compositions, would include the known humectants in the antiperspirant stick composition of D1 without any inventive activity. Claim of the first auxiliary request thus does not meet the requirements of Article 56 EPC.

4. *Second auxiliary request - novelty*

- 4.1 Claim 1 according to the second auxiliary request corresponds to claim 1 of the main request with the addition that the binding of the hydroxyl-containing humectant to the perfume carrier material is

accomplished "by premixing them in a liquid carrier before addition of the antiperspirant active".

- 4.2 The added product-by-process feature can confer novelty to the claimed product only in the presence of evidence that it implies distinct differences in the properties of the produced product.
- 4.3 The tests which are available in the patent (example 3, paragraphs [0054]-[0057]; see also point 3.5, above) show that if a specific premixing at high shear using a homogeniser device with a rotor stator system and a minimum shear threshold of 1500 sec^{-1} is used, a smooth product is obtained, while, in the absence of such a specific premixing, the stick is gritty. The conditions in the example are very specific and capable of causing a very intimate mixing between the premixed ingredients. In view of this, the results cannot be extrapolated to any kind of premixing as defined in claim 1 of the second auxiliary request. Moreover, the comparative tests filed on 30 October 2006 by the opponents have shown that also the stick of example A of D1 is not gritty. For these reasons, it cannot be concluded that sufficient evidence has been provided that the claimed product possesses distinct differences caused by the method of production.
- 4.4 In view of this, the stick of claim 1 of the second auxiliary request is not novel with respect to the product of example A of D1 for the same reasons as outlined in points 2.1 to 2.8 above.

5. *Third auxiliary request - admissibility and amendments*

5.1 The third auxiliary request filed at the oral proceedings before the Board includes only two independent process claims, which are meant to limit the scope of protection to the embodiments for which an advantage has been shown in the patent in suit. The Board considers these claims as a reasonable attempt to overcome the objections against all requests which were filed before the oral proceedings took place. Moreover, they were present with identical wording in the set of claims considered allowable by the opposition division and their analysis did not require any additional effort on the side of the Board and of the parties. For these reasons, the Board admits the third auxiliary request into the appeal proceedings (Article 13 of the Rules of Procedure of the Boards of Appeal).

5.2 Claim 1 and 2 of the third auxiliary request correspond to granted claims 13 and 14 with the addition that the humectant "comprises sorbitol, glycerol, ethylene glycol or propylene glycol or mixtures thereof". The original application specifies that humectants "of particular interest for the present invention are polyols and alcohols such as sorbitol, glycerol, ethylene glycol, propylene glycol or mixtures thereof" (page 4, lines 14-17). This is confirmed by original claim 5 which reads: "An antiperspirant composition according to any one of the preceding claims wherein the humectant comprises sorbitol, glycerol, propylene glycol or ethylene glycol". The specification in the preferred processes of the invention as in granted claims 13 and 14 (corresponding to original claims 13 and 14 with the addition of the definitions of

"substantially anhydrous" and "high shear" according to page 7, lines 2-6 and page 12, lines 6-7 of the original application respectively) that the humectant comprises those presented as the preferred ones in the original application results therefore in subject-matter which does not extend beyond the content of the application as filed.

6. *Third auxiliary request - novelty and inventive step*

- 6.1 The process for manufacturing an anhydrous antiperspirant stick of example A of D1 is characterised by a completely different sequence of steps (see point 2.2., above) than the claimed one. In particular, it does not include a preliminary blending step under a shear of at least 1500 sec^{-1} of the humectant and the perfume carrier together with a liquid carrier as the processes of claims 1 and 2 of the third auxiliary request. Moreover, the produced stick does not contain any sorbitol, glycerol, propylene glycol or ethylene glycol. There can be no doubt, therefore, that the claimed processes are novel with respect to the disclosure of D1.
- 6.2 Since no other prior art document comes closer to the composition of the produced stick and to its method of manufacturing, D1 is still to be considered as the closest prior art in agreement with the opinion of both parties.
- 6.3 Starting again from the technical problem stated in the patent in suit (see point 3.3, above), the available evidence needs to be evaluated in order to check whether this problem has effectively been solved by the

solution proposed in claims 1 and 2 of the third auxiliary request.

- 6.4 As detailed above (see point 3.5), example 3 of the patent in suit shows that, if an anhydrous antiperspirant stick containing glycerol as humectant is produced without including a preliminary blending step according to the processes of claims 1 and 2 of the third auxiliary request, a gritty product is obtained, while a smooth stick is produced, when a process comprising the specific blending step is employed. The comparative tests of the opponents filed on 30 October 2006 show that a stick produced according to the method of D1 with PEG-20 as humectant is not gritty (example 1 in the tests of the opponents), while the product is gritty, if the same manufacturing process is repeated with glycerol replacing PEG-20 (example 2 in the tests of the opponents).
- 6.5 These tests confirm that, while the problem of grittiness may not be relevant when PEG-20 is used as humectant, when a humectant like glycerol is employed, the produced stick is gritty and therefore unsatisfactory on use, unless a process is chosen including a preliminary blending under a shear of at least 1500 sec^{-1} of the humectant and the perfume carrier together with a liquid carrier.
- 6.6 The opponents has objected that this is not necessarily the case also for the other humectants which are listed in the claims. However, due to the similarity in chemical structure (all listed humectants are polyol with short molecular chains) and in the absence of countertests on the side of the opponents, the Board

has no reason to doubt that the results for glycerol can be extrapolated to sorbitol, ethylene glycol and propylene glycol.

6.7 The problem to be solved with respect to the process of D1 is therefore the provision of an alternative method of manufacturing a non-gritty anhydrous antiperspirant stick including a different humectant.

6.8 While the use of sorbitol, glycerol, ethylene glycol and propylene glycol as humectants in antiperspirant stick compositions is known in the prior art (see point 3.9, above), there is no hint in the available prior art that, when the humectant comprises one of these components, it is necessary to include a preliminary blending under a shear of at least 1500 sec^{-1} of the humectant and the perfume carrier together with a liquid carrier in order to obtain a non-gritty product.

6.9 The processes of claims 1 and 2 of the third auxiliary request involve therefore an inventive step.

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 on the basis of the third auxiliary request (auxiliary request D) as submitted during the oral proceedings and a description to be adapted thereto.

The Registrar

The Chairman

S. Fabiani

J. Riolo