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Datasheet for the decision of 18 May 2010

Case Number: T 1547/05 - 3.3.07

Application Number: 97301077.0

Publication Number: 0792634

IPC: A61K 7/32

Language of the proceedings: EN

Title of invention:
Antiperspirant aerosol composition and method of making same

Patentee:
Unilever PLC, et al

Opponent:
BEIERSDORF AG
HENKEL AG & CO. KGAA
L'OREAL

Headword:
-

Relevant legal provisions:
EPC Art. 54

Relevant legal provisions (EPC 1973):
-

Keyword:
"Novelty (no; all requests)"

Decisions cited:
G 0002/88, G 0006/88

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1547/05 **-** 3.3.07

D E C I S I O N
of the Technical Board of Appeal 3.3.07
of 18 May 2010

Appellants: (Opponent 01)	BEIERSDORF AG Unnastrasse 48 D-20245 Hamburg (DE)
Representative:	von Kameke, Allard Uexküll & Stolberg Patentanwälte Beselerstrasse 4 D-22607 Hamburg (DE)
(Opponent 03)	L'OREAL 14, Rue Royale F-75008 Paris (FR)
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Party as of right: (Opponent 02)	HENKEL AG & CO. KGAA FJP D-40191 Düsseldorf (DE)
Representative:	-
Respondent: (Patent Proprietor)	Unilever PLC Unilever House Blackfriars London Greater London EC4P 4BQ (GB)
Representative:	Rots, Maria Johanna Francisca Unilever Patent Group Colworth House Sharnbrook Bedford MK44 1LQ (GB)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 29 November 2005 rejecting the opposition filed against European patent No. 0792634 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: S. Perryman
Members: B. ter Laan
G. Santavicca

Summary of Facts and Submissions

I. The appeal by the opponents lies against the decision of the opposition division to reject the oppositions against European patent No. 0 792 634 (based on European application No. 97 301 077.0).

II. The patent was granted on the basis of five claims, independent claim 1 reading:

"1. A suspension antiperspirant aerosol composition for topical application to the human skin comprising 1-30% by weight of solid activated aluminium chlorohydrate, 1-30% by weight of a liquid masking agent 30-90% *(sic)* of a propellant for expelling the composition from a container and a carrier, characterized in that the activated aluminium chlorohydrate comprises non-hollow particles."

III. Three notices of opposition against the patent were filed, in which the revocation of the patent in its entirety was requested on the grounds of Article 100(a) EPC (lack of novelty as well as lack of an inventive step), as well as Article 100(b) EPC (insufficient disclosure; opponents 01 and 03).

IV. The decision under appeal was *inter alia* based on the following documents:

D1 EP-A-0 452 762,
D2 Reheis correspondence 2 August 1995, P.B. Klepak, Technical article on "The trouble with Stains",
D3 US-A-4 904 463,

D4 The Reheis Report, Vol. V, 1987, "1987- The Year of Enhanced Efficacy Antiperspirants", p.1-6,

D5 Reheis publication ""Reach" for the future", Reheis Enhanced Efficacy Aluminium Chlorohydrates,

D6 Poucher's Perfumes, Cosmetics and Soaps, Vol. 3: Cosmetics, 9th ed. Chapman & Hall, 1993, p.22-23,

D9 Reheis, Particle Size & Shape Distribution of Reach® 103, 31 October 2003,

D12 Micoscope image, 8 March 2000,

D14 Reheis, correspondence Peter Maurer, 26 February 2004,

D15 Microscope images of Reach® 101, 11 March 2004,

D16 Reheis publication "Reach® Enhanced Efficacy Antiperspirant Actives",

D17 Reheis correspondence Roy S. Lyon, 29 October 2003,

D18 Henkel analysis of Reach® 103, 19 September 2003,

D26 GB-A-1 568 831,

D27 Reheis publication "Reach® Enhanced Efficacy "Dry Deodorant"™ Actives Antiperspirant Actives",

D28 Microscope image of Reach® 101,

D28a Reheis, Particle Size and Shape Distribution of Reach® 103, 7 July 2005,

D29 GB-2 291 805,

D33 EP-A-0 274 252.

V. The opposition division found that

(a) Regarding insufficiency of disclosure, the objections raised by the opponents related to Article 84 EPC rather than Article 83 EPC, in particular the problems the opponents had with the terms "carrier", "continuous refractive index", "masking agent" and "non-hollow" and the lack of indication whether the propellant amount was by

weight or by volume. Based on the information in the patent specification, which left no ambiguity as to the meaning of those terms, the skilled person was capable of carrying out the invention, so that Article 83 EPC was complied with. The meaning of "non-hollow" was defined in paragraph [0012] of the patent in suit.

(b) The claimed subject-matter was novel as none of the cited documents directly and unambiguously disclosed all the claimed features in combination.

In particular, D26 disclosed either a higher amount of propellant or of non-aerosol compositions. Also, more compounds than only aluminium chlorohydrate were described in D26 so that in order to arrive at the claimed composition, at least two selections were necessary. Further, it was not clear that the products used in D26, Reach® 101 and Reach® 103, even if milled or having a reduced particle size, comprised non-hollow particles in the sense of paragraph [0012] of the patent in suit. D16 described that Reach® products known under the same trade name, could have various particles sizes. The same applied to other documents in which the use of Reach® products was described, such as D6 and D27; regarding the latter, a particle size below 100 µm did not necessarily imply that the particles were non-hollow. The aluminium chlorohydrates used in D3 and D33 had not been indicated as products that had actually been milled as such, so that it could not be concluded that those products would comprise non-hollow particles according to the

definition of paragraph [0012] of the patent in suit either.

(c) As to inventive step, D29 was the closest prior art document. The problem to be solved was to provide an antiperspirant composition having anti-whitening properties. D29 taught to use a specific masking agent together with a suspending agent, not an active aluminium chlorohydrate with non-hollow particles. D2 suggested to solve the staining problem by reducing the iron content. D33 did not address the same problem, nor did D5 or any of the other cited documents. Therefore, any combination of those documents would not lead to the claimed subject-matter.

VI. On 19 December 2005 opponent 01 lodged an appeal against the above decision, setting out the grounds for the appeal, together with a new document regarding the refractive index of Reach® 101. The prescribed fee was paid on the same day. Further comments were submitted by letter dated 25 November 2009 together with a further new document, and by letters dated 15 March 2010 and 16 April 2010. With the letter of 15 March 2010 eight further documents were cited.

On 4 January 2006 opponent 02 lodged an appeal against the above decision. The prescribed fee was paid on the same day. The statement setting out the grounds of appeal was filed on 3 April 2006, together with a new document regarding Reach® 103. The appeal was withdrawn by letter dated 31 March 2009.

On 26 January 2006 opponent 03 lodged an appeal against the above decision. The prescribed fee was paid on the same day. The statement setting out the grounds of appeal was filed on 10 April 2006, together with a new document regarding the refractive index of aluminium chloride.

VII. Third party observations by the Procter & Gamble Company were filed on 19 April 2010.

VIII. By letter dated 21 August 2006 the patent proprietors (respondents) filed comments on the grounds for the appeal, followed by a new main and three auxiliary requests submitted by letter dated 18 March 2010, together with seven new documents. The auxiliary requests were replaced by three other ones submitted by fax dated 14 May 2010.

Claims 1 and 3 of the main request read (the additions compared to claim 1 as granted are indicated in bold):

"1. A suspension antiperspirant aerosol composition for topical application to the human skin comprising 1-30% by weight of solid activated aluminium chlorohydrate, 1-30% by weight of a liquid masking agent 30-90% *(sic)* of a propellant for expelling the composition from a container and a carrier, characteri**s**ed in that the activated aluminium chlorohydrate comprises non-hollow particles **and the liquid masking agent is selected from the group comprising benzoate esters, hydrogenated polybutene, PPG-14 butyl ether, isopropyl palmitate, phenyl silicone and isopropylmyristate**."

"3. **Use of a suspension antiperspirant composition according to claim 1 for reducing visible whitening**."

Claim 1 of the first auxiliary request reads:

"1. **The use as the antiperspirant material of** solid activated aluminium chlorohydrate that comprises non-hollow particles **for reducing visible whitening in** a suspension antiperspirant aerosol composition for topical application to the human skin comprising 1-30% by weight of solid activated aluminium chlorohydrate, 1-30% by weight of a liquid masking agent 30-90% *(sic)* of a propellant for expelling the composition from a container and a carrier."

Claim 1 of the second auxiliary request reads:

"1. **The use as the antiperspirant material of** solid activated aluminium chlorohydrate that comprises non-hollow particles **for reducing visible whitening in** a suspension antiperspirant aerosol composition for topical application to the human skin comprising 1-30% by weight of solid activated aluminium chlorohydrate, 1-30% by weight of a liquid masking agent 30-90% *(sic)* of a propellant for expelling the composition from a container and a carrier, **characterised in that the solid activated aluminium chlorohydrate has a continuous refractive index.**"

Claim 1 of the third auxiliary request reads:

"1. **The use as the antiperspirant material of** solid activated aluminium chlorohydrate that comprises non-hollow particles **for reducing visible whitening in** a

suspension antiperspirant composition for topical application to the human skin comprising 1-30% by weight of solid activated aluminium chlorohydrate, 1-30% by weight of a liquid masking agent 30-90% *(sic)* of a propellant for expelling the composition from a container and a carrier, **characterised in that the liquid masking agent is selected from the group comprising benzoate esters, hydrogenated polybutene, PPG-14 butyl ether, isopropyl palmitate, phenylsilicone and isopropylmyristate**. "

IX. During the written appeal procedure numerous additional documents were cited, *inter alia*:

D45 Summit Research Labs, Inc, correspondence Mark Rerek, 21 January 2010,
D46 Declaration by Thomas Harper, 10 February 2010,
D47 Declaration by Gary Coleman, 25 June 2009.

X. Oral proceedings were held on 18 May 2010, in the absence of opponent 02 (party as of right; as announced by letter dated 4 November 2009) and opponent 03 (appellants; as announced by letter dated 23 February 2010) (Rule 115(2) EPC).

XI. The appellants' arguments can be summarised as follows:

Main request

(a) The amended claims were not admissible since they did not comply with Articles 123(2) and 123(3) EPC. In claim 1 the dependencies had been changed by the incorporation of the subject-matter of claim 5 as granted, for which there was no support in the

original application. The change of category of claim 3 of the main request from product to use claim was not caused by any ground for opposition nor did it comply with Article 123(3) EPC.

(b) Features were combined that partly came from the patent specification and introduced an additional lack of clarity so that Article 84 EPC was applicable. It was not clear what exactly a "carrier" was in relation to the masking agent since the same compounds could be used for both purposes. Also, the meaning of "activated", "solid" and "non-hollow" was unclear. If the definition of "non-hollow" of paragraph [0012] of the patent specification was accepted, Article 83 EPC was not complied with as no method was indicated for measuring the size of the voids. The same was valid for the measurement of the refractive index. The many unclear terms rendered the skilled person unable to reproduce a composition according to the claimed subject-matter of all requests (Article 83 EPC).

(c) Regarding novelty, all documents in which e.g. Reach® 101, Reach® 103 or Westwood DM-200 was used in antiperspirant compositions were novelty destroying for claim 1 of the main request since those compounds fell under the definition of non-hollow particles according to paragraph [0012] of the patent in suit since they all contained broken particles, as could be seen from many of the documents on file. In particular D1 and D3 disclosed antiperspirant aerosol compositions according to claim 1 of the main request,

containing such particles, so that the main request lacked novelty (Article 54 EPC).

(d) The first auxiliary request did not comply with Articles 84, 83, 123(2) and 123(3) for the same reasons as the main request. Articles 123(2) and 123(3) were also not complied with as claim 1 now concerned the specific use of the solid activated aluminium chlorohydrate instead of the use of the composition as a whole. Furthermore, claim 1 of the first auxiliary request lacked novelty for the same reasons as the main request. The reformulation into a use claim could not change the fact that it concerned the known application of a known compound.

(e) The arguments given for the first auxiliary request also applied to the second and third auxiliary requests.

XII. The arguments of the respondents can be summarized as follows:

(a) The terms used in the claims were explained:
- carrier: a simple functional definition with a broad meaning, often used in the field.
- emollient: could be part of the carrier.
- masking agent: a simple functional definition, usual in the field, for a means to cover up white markings. A masking agent might also have other functions.
- activated: referred to aluminium chlorohydrate having improved performance, an expression known

in the field as could be seen from e.g. D46 and D47.

- solid: as opposed to dissolved, a discontinuous aqueous phase.

- non-hollow: a known term referring to milled activated aluminium chlorohydrate, as could be seen from D47, where clearly it was understood what was meant by non-hollow.

- not greater than 40% of the particle diameter: as small particles could escape grinding, a number of them could still be present in the milled product. The indication of the 40% limit took account of that situation. However, the majority of the particles were smashed. That was also recognized by D46 (point 4), according to which even without milling some particle fragments were present. Milling down particles of 50-150 µm would give particles falling within the definition of non-hollow.

- continuous refractive index: referred to non-hollow particles, as stated in e.g. paragraph [0009] of the patent specification. Removing the hollow particles resulted in a continuous refractive index since no hollow particles were then present. Particles having voids, also of less than 30% of the particle diameter, had no continuous refractive index. A continuous refractive index could be achieved by milling, according to paragraph [0013] of the patent specification. The measurement of the refractive index was well-known and clear.

(b) As to novelty, there was no doubt that the Reach® and Westwood DM-200 products were activated. It

had however not been established beyond any doubt that they comprised non-hollow particles as now being claimed, as could be seen from e.g. D45. There was no direct test corroborating that the products actually used in the cited documents fulfilled the requirement of comprising non-hollow particles. All the evidence on file was hearsay, statements by others than the manufacturer of the products, and it was not even certain if the statements concerned the same products as used in the cited documents. Also, if the products were stated not to have been changed, that might be true for their chemical nature, but nothing was known about their physical properties. It was known that the Reach® products existed in different particle sizes so that particle size could not serve as evidence of milling. Therefore, there was no direct and unambiguous disclosure of the present composition comprising non-hollow particles, so that the novelty of the main request had to be acknowledged.

(c) As to the auxiliary requests; it was known to mill the solid activated aluminium chlorohydrate particles in order to achieve small particles useful for spraying. The use of those particles for reducing whitening was however not known, so that the novelty of the auxiliary requests had to be accepted.

XIII. The appellants (opponents) requested that the decision under appeal be set aside and the patent be revoked.

The respondents (patent proprietors) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claims of the main request filed 18 March 2010 or the first, second or third auxiliary request filed 14 May 2010.

Reasons for the Decision

1. The appeal is admissible.

Late filed documents

2. During the appeal proceedings a vast amount of additional documents were filed. The respondents did not raise any objections against them being admitted into the proceedings and even used some of them for their own arguments. Therefore, the Board admits into the proceedings D45, D46 and D47.

Main request

Article 84 EPC

3. All the terms which the appellants objected to as being unclear were present in claim 1 as granted so that lack of clarity does not arise from the amendments. The more specific definition of the masking agent is clear by itself. Therefore, Article 84 EPC, not being an opposition ground, does not apply and the exact meaning of any term present in the claims, if unclear, will have to be interpreted in the light of the patent specification.

Article 83 EPC

4. The objections raised under Article 83 EPC concern unclear and overlapping terminology and uncertainty of the limits of the claimed subject-matter, all of which concern Article 84 EPC rather than the inability of the skilled person to prepare a composition as claimed on the basis of the patent specification. In particular, the patent specification describes how to obtain non-hollow particles: by grinding or milling particles having a hollow core (paragraphs [0013] and [0027]). Therefore, the requirements of Article 83 EPC are complied with.

Novelty

5. Regarding novelty, the appellant made the general statement that most of the cited documents were novelty-destroying if the aluminium chlorohydrate used in the described compositions was considered to fall under the present claims. In particular, D1 and D3 were cited.

5.1 D1 discloses an antiperspirant aerosol composition containing 10% by weight Reach® 101, 8,4% by weight isopropyl myristate, 3,0% by weight cyclomethicone and 75,0% by weight propellant (Table 1; example 1). According to the footnotes under the table, Reach® 101 is an aluminium chlorohydrate antiperspirant active sold by Reheis Chemical Company. Isopropyl myristate is a liquid masking agent according to the patent in suit (claim 1; paragraph [0019]) and cyclomethicone is a liquid emollient carrier according to the patent in suit (paragraph [0020]).

5.2 D3 discloses an antiperspirant aerosol composition containing 8,00% by weight Westwood DM-200, 4,0% by weight isopropyl myristate, 6,0% by weight cyclomethicone and 81,1% by weight propellant (Example 11). According to footnote 1, Westwood DM-200 is an enhanced efficacy aluminium chlorohydrate sold by Westwood Chemical Corporation. Therefore, the only question to be answered is whether Westwood DM-200 falls under the notion of "solid activated aluminium chlorohydrate comprising non-hollow particles". The aerosol is made by mixing the concentrate components, which is then milled under high shear conditions (column 7, line 67 to 68 in conjunction with lines 43 to 45).

5.3 The parties agreed that the compositions of D1 and D3 came very close to the one now being claimed.

Reach® 101 is mentioned in D4 (page 1, column 2, lines 2 and 3) as an activated form of aluminium chlorohydrate.

Both Reach® 101 and 103 are indicated as "Activated ACH" in Formula XIX of D6, directly following a passage describing the replacement of standard ACH with "enhanced efficiency aluminium chlorohydrate".

Regarding Westwood DM-200 mentioned in D3, according to footnote 1 underneath the table in Example 11, it is an enhanced efficacy aluminium chlorohydrate, which is a common expression for activated aluminium chlorohydrate, as confirmed by D46 (declaration by Thomas Harper).

Therefore, those products can be considered as solid activated aluminium chlorohydrates in the sense of the patent in suit, which was also agreed by the parties.

5.4 In fact, there was agreement between the parties that the only question was whether the known Reach® 101 and 103 and Westwood DM-200 were in a form that fell under the term "comprising non-hollow particles".

5.4.1 According to the patent specification paragraph [0012], by "non-hollow" in the context of the patent in suit is meant "particles which contain no cores or voids which have a diameter of greater than 40% of the particle diameter." However, no means to measure the voids is given, nor is it indicated what diameter should be considered in case of irregularly formed particles. According to D47 (declaration by Coleman; point 15), it is impossible to establish by SEM photomicrography whether particles have voids within them, nor is the writer aware of any analytical method by which the size of the cores or voids within the hollow particles might be accurately measured. The suggestion by the respondent of breaking and then measuring the particles finds no basis in the patent in suit.

Paragraph [0012] of the patent specification also contains a reference to the refractive index which should be continuous. However, it is not indicated in what way a continuous refractive index would be linked to the definition of "non-hollow". Paragraph [0034] refers to single solid particles, i.e. not containing a hollow core or not being a hollow spheroid particle. The patent specification is silent about the possible presence of other particles which the wording of

claim 1 allows by the use of "comprises". In particular, nothing is said about how many particles having a void, be it smaller or greater than 40% of the particle diameter - which do not have a continuous refractive index, according to paragraph [0009] of the patent specification -, may be present without the activated aluminium chlorohydrate losing its continuous refractive index.

Therefore, the voids content of the particles as defined in paragraph [0012] of the patent specification is not suitable for establishing whether the activated aluminium chlorohydrate comprises "non-hollow" particles in the sense of the patent in suit.

5.4.2 Another indication of what is meant by "non-hollow" can be found in paragraph [0027] of the patent specification, where it is indicated that they may be "... nearspherical particles of mean diameter for example 20-30 microns, which can be produced by reducing in particle size particles which originally had a size in the region of 100 microns. The original particles have a hollow core i.e. are in the form of a shell enclosing a hollow air-containing core. .... hence processing to remove the hollow core, ... is beneficial." That is in conformity with paragraph [0013], according to which "a preferred method of obtaining such AACH with no or very small cores or voids is to obtain AACH with very large particle sizes (e.g. 100 microns or more), and reduce these particles in size by grinding or milling them." Further indications can be found in paragraph [0041], according to which "by milling the AACH and thereby eliminating the hollow core of AACH particles,..." and in paragraph

[0042], where it is concluded that "with milled AACH, a huge reduction in whiteness can be attained ....", AACH meaning activated aluminium chlorohydrate. No other way of preparing the desired particles, or any further steps apart from the milling, are indicated. Therefore, the patent in suit teaches that simple milling or grinding of coarser particles (i.e. of about 100 µm) containing hollow cores is sufficient to obtain "non-hollow" particles.

5.4.3 That conclusion is in conformity with D46 (Harper declaration) and D47 (Coleman declaration), both declarations being accepted by the parties as correct accounts of the preparation of the products to which they refer.

D46 (point 4) describes how Westwood DM-200 is produced by a process of spray drying and milling (also known as "grinding" or "micronizing"), as a result of which the relatively large hollow spheres of activated aluminium chlorohydrate that are produced by a process of spray drying are smashed apart by the milling machinery, in order to decrease the average particle size. According to D46, the resulting impalpable powder (the milled material) is therefore made up of solid particles of activated aluminium chiorohydrate, which used to be part of the walls of these larger hollow spheres that are produced in the spray drying chamber. Indeed, the majority of the solid particles in the final product are produced by the milling operation, although some of the solid fragments are instead produced during the spray drying process itself, as the large hollow spheres that are produced by the step of spray drying either crash into each other or into the walls of the

spray drying chamber. It is concluded that the Westwood DM-200 material being an activated aluminium chlorohydrate material produced by a process of spray drying, followed by a process of milling, the vast majority of the particles within the Westwood DM-200 material were solid particles of activated aluminium chlorohydrate having no internal voids or cavities.

5.4.4 According to D47 (Coleman declaration; points 6 to 9), the vast majority of activated aluminium chlorohydrate powders for use in antiperspirant products are made by spray drying a water solution of the activated aluminium chlorohydrate. This produces a powder containing hollow macrospherical beads. These hollow beads are then ground down or milled to reduce the size of the particles. The macrospherical beads that are produced by the spray drying process typically have an average diameter of about 50 to 150 microns, although there are some small spheres as well as some very large spheres. This is not however the only type of particle that is produced during the spray drying process. To the contrary, the hollow macrospherical beads may collide with the walls of the spray drying chamber and hence not only crack open, but also break apart. Inter-particle collisions within the spray drying chamber may also lead to the same result. Thus, according to D47, in addition to the hollow macrospherical beads, there will always be a smaller proportion of particles which are not hollow particles of spherical shape, but are fragments of the outer shells of larger hollow macrospherical beads which have broken apart in the spray drying chamber. These solid fragments of the outer shells of larger hollow macrospherical beads will not contain any internal cores or voids, let alone any

cores or voids having a diameter of greater than 40% of the total diameter of the particle.

In points 8 to 11 of D47 the milling or grinding (this is also referred to as the particles being "micronized") of the particles obtained by spray drying is described in order to reduce the average particle size from the 50 to 150 micron range to a particle size distribution in which the majority of the particles have a diameter of less than about 30 microns, which is necessary for their use in e.g. antiperspirant aerosol sprays. That process produces further solid fragments of the outer shells of the hollow macrospherical beads, which will not contain any cores or voids.

5.4.5 From D46 and D47 it therefore appears that even the spray dried products, without having been milled or ground, will contain some broken fragments which have no voids and would therefore fall under the definition of "non-hollow" according to paragraph [0012] of the patent in suit so that, since present claim 1 is not restricted to any minimum amount of non-hollow particles, the compositions described in D1 and D3 would fall under the wording that the activated aluminium chlorohydrate should comprise non-hollow particles, already for that reason.

5.4.6 Moreover, the aluminium chlorohydrate products used in D1 and D3, i.e. Reach® 101 and Westwood-DM 200, are milled or ground products, as can be seen *inter alia* from the following:

D46, point 4, describes how Westwood DM-200 is produced by a process of spray drying and milling.

According to D9, which gives the particle sizes and distribution of a specific lot of Reach® 103 Microdry Powder, some 20 to 30% of the particles in all the micronized products are hollow spherical particles, the rest being irregularly shaped. The wording implies that Reach® 103 Microdry Powder is micronized. The accompanying photographs of D9 as well as D18 show the presence of broken pieces of particles which are not hollow. In D18 it is stated that the product has probably been milled. According to D14 and D17, the product specifications of Reach® 103 Microdry have remained essentially the same between 1991 and the date of the letter (3 March 2010).

According to D28a, which gives the particle sizes and distribution of a specific lot of Reach® 101, the results are consistent with those for Reach® 103 (D9), showing about 18% spherical and 82% irregular particles being present. It is repeated that in all the micronized products hollow spherical particles can be found. The wording implies that Reach® 101 is micronized. D12, D15 and D28 are photomicrographs of Reach® 101 showing highly irregular pieces of what appear to be broken particles.

According to D45, both Reach® 101 and Reach® 103 are highly activated aluminium chlorohydrate materials and milled products. The fractured particles can be described as non-hollow.

The contents of other documents on file were consistent with the above cited ones. There was no document that

indicated that the products used in D1 and D3 might not have been prepared by spray drying and milling.

5.4.7 Taking account of the vast amount of information on file consistently pointing to Westwood DM-200 and Reach® 101 being spray dried, milled products containing fractured particles, and in view of paragraph [0012] of the patent in suit, the Board comes to the conclusion that the solid activated aluminium chlorohydrates used in the compositions of D1 and D3 fall within the term "comprising non-hollow particles".

5.5 In view of the above, the subject-matter of claim 1 of the main request is not novel (Article 54 EPC).

Auxiliary requests

6. The claims 1 of all auxiliary requests are formulated in the form of use claims, in which the solid activated aluminium chlorohydrate comprising non-hollow particles is used as the antiperspirant material for reducing visible whitening.

6.1 Apart from the questions whether the patent application as filed provides sufficient basis for such a formulation (Article 123(2) EPC) and whether such a change of category complies with Article 123(3) EPC, for novelty of those use claims the use should actually be new.

In the present case, the compositions of D1 and D3 are all used as antiperspirant compositions, so that the means of realisation in association with the known solid activated aluminium chlorohydrate comprising non-

hollow particles, forming part of those compositions, is already within the state of the art. Since the only technical feature in the claims 1 of the first and third auxiliary request discerning them from claim 1 of the main request is the known solid activated aluminium chlorohydrate in association with the known means of realisation, those claims 1 include no novel technical feature by which the purpose of reduced whitening is achieved and they do not teach the skilled person to do something which he would not have done without knowing the content of the patent. (G 2/88, OJ 1990, 93, and G 6/88, OJ 1990, 114). Therefore, the claims 1 of auxiliary requests 1 and 3 are not novel. The requirements of Article 54 EPC are not met.

6.2 The same is valid for claim 1 of auxiliary request 2 as regards the reformulation into a use claim. The only other technical feature discerning that claim from claim 1 of the main request is the solid activated aluminium chlorohydrate having a continuous refractive index.

6.2.1 According to the claim, "... the solid activated aluminium chlorohydrate has a continuous refractive index." That wording suggests that the whole of the solid activated aluminium chlorohydrate should have a continuous refractive index, in other words all particles of it. However, that is in contradiction with the term "... solid activated aluminium chlorohydrate that **comprises** non-hollow particles ..." (emphasis added by the Board) allowing the presence of even considerable amounts of hollow particles which have a non-continuous refractive index, as explained in paragraph [0009] of the patent in suit. Also in the

patent specification no indication of the exact meaning of the solid activated aluminium chlorohydrate having a continuous refractive index can be found (see also point 5.4.1 above). Therefore, claim 1 of auxiliary request 2 does not comply with Article 84 EPC.

6.2.2 Moreover, according to paragraph [0034] of the patent specification, "... a milled AACH particle which is solid, i.e. does not contain a hollow core or is not a hollow spheroid particle would clearly result in reduced whitening". Since the particles used in the compositions of D1 and D3 are milled (see points 5.4.6 and 5.4.7 above), they must have a continuous refractive index in the sense of the patent in suit. Therefore, that feature cannot establish novelty over those documents either so that claim 1 of auxiliary request 2 is not novel (Article 54 EPC).

6.3 In view of the above, the subject-matter of none of the three auxiliary requests is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

Registrar | Chairman

S. Fabiani | S. Perryman