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**Datasheet for the decision
of 22 March 2011**

Case Number: T 0172/07 - 3.3.07

Application Number: 99125322.0

Publication Number: 1016401

IPC: A61K 7/06

Language of the proceedings: EN

Title of invention:
Hair cleansing composition

Patent Proprietor:
KAO CORPORATION

Opponents:
01) Wella GmbH
02) L'OREAL

Headword:
-

Relevant legal provisions:
EPC Art. 56, 123(2)(3)
RPBA Art. 13

Relevant legal provisions (EPC 1973):
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Keyword:

"Procedural matters - Party status as opponent - Representation (yes)"

"Extension of protection conferred (yes) - Main request"

"Alleged divergence between two decisions of the Boards of Appeal - Referral (no)"

"Amendments - Allowable (yes) - Auxiliary Request 1"

"Inventive step (no) - Obvious solution - Auxiliary Request 1"

"Claim requests filed during the oral proceedings - Admissible (no) - Auxiliary requests 2 and 3"

Decisions cited:

T 1556/07, T 2017/07, T 1188/00, T 0197/86

Catchword:

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Case Number: T 0172/07 - 3.3.07

DECISION
of the Technical Board of Appeal 3.3.07
of 22 March 2011

Appellant:
(Opponents 02)

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Representative:

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Respondents:
(Patent Proprietors)

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Representative:

HOFFMANN EITLÉ
Patent- und Rechtsanwälte
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Party as of right:
(Opponents 01)

Wella GmbH
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Representative:

-

Decision under appeal:

Interlocutory decision of the Opposition
Division of the European Patent Office posted
1 December 2006 maintaining European patent
No. 1016401 in amended form.

Composition of the Board:

Chairman: J. Riolo
Members: G. Santavicca
F. Blumer

Summary of Facts and Submissions

I. The appeal by opponents 02 lies from an interlocutory decision of the Opposition Division maintaining European patent 1 016 401 (application N° 99 125 322.0), according to which, account being taken of amended Claims 1 to 3 of the Main Request submitted with letter dated 20 May 2005 and of a description adapted thereto during the oral proceedings held on 14 November 2006, the patent and the invention to which it relates were found to meet the requirements of the EPC.

II. The patent as granted comprised 3 claims, Claim 1 reading as follows:

"1. A hair cleansing composition comprising the following components:

(A)	glycine and/or alanine	0.01 to 20 wt.%
(B)	one or more acids selected from α -hydroxy acid, β -hydroxy acid, 1,2-dicarboxylic acid, 1,3-dicarboxylic acid, aromatic carboxylic acid	0.01 to 5 wt.%
(C)	one or more anionic surfactants selected from alkylsulfuric acid salt, alkylethersulfuric acid salt, N-alkylamidoalkanolsulfuric acid ester salt.	5 to 40 wt.%

III. Two oppositions were filed seeking revocation of the patent in its entirety on the grounds that the disclosure was insufficient (Article 100(b) EPC) (only opponents 02) and that its subject-matter lacked novelty (only opponents 02) and an inventive step (Article 100(a) EPC), *inter alia* having regard to the following documents:

D1: GB-A-2 322 550;

D4: US-A-4 855 130.

With letter of 13 October 2006, opponents 02 submitted a comparative test report (D12) as well as copy of the following documents:

D9a: Excerpt of Harry's Cosmeticology,
7th Edition, 1982, pages 432-443;

D10a: Cosmetics Science and
Technology, Malabar, Florida, 1992,
pages 88-97.

IV. Claim 1 of the Main Request underlying the decision under appeal read as follows (compared with Claim 1 as granted, added features are indicated in bold and deleted features in strike-through):

"1. A hair cleansing composition comprising the following components:

(A)	glycine and/or alanine	0.01 to 20 wt.%
(B)	one or more acids selected from α-hydroxy acid, β-hydroxy acid, 1,2-dicarboxylic acid, 1,3-dicarboxylic acid, aromatic carboxylic acid malic acid, succinic acid and maleic acid	0.01 to 5 wt.%
(C)	one or more anionic surfactants selected from alkylsulfuric acid salt, alkylethersulfuric acid salt, N-alkylamidoalkanolsulfuric acid ester salt.	5 to 40 wt.%

V. According to the decision under appeal:

(a) The ground of opposition under Article 100(c) EPC 1973 did not prejudice the maintenance of the patent.

(b) The objection under Article 84 EPC 1973 did not arise out of the amendments and the claims were clear.

(c) As regards inventive step, the closest prior art was disclosed by D1, particularly its Examples 6 and 7. Although the test reports of the appellants showed that the claimed compositions did not bring about any improvement over those of Examples 6 and 7 of D1, different amino acids and acids than those of the compositions of D1 were claimed, the combination of which was not suggested by D1, let

alone by any of the further documents such as D4.
Hence the claimed subject-matter was not obvious.

- VI. In the statement setting out the grounds of appeal, the appellants maintained the objections of added subject-matter (having regard to the deletion of a line in Table 1 and of a passage on page 9, lines 23 to page 10, line 8, both from the description of the application as originally filed), of lack of clarity (having regard to the maximum quantity of the components as defined in Claim 1, i.e. 65%) and of lack of an inventive step, and enclosed a test report (D13). In a letter of 9 December 2010, a further test report (D14) was enclosed.
- VII. By letter of 18 January 2011, opponents 01 (party as of right pursuant to Article 107 EPC 1973, second sentence) raised an objection under Article 123(3) EPC against Claim 1 of the Main and Auxiliary Requests.
- VIII. By letter of 4 September 2007, the respondents filed observations on the grounds of appeal and objected to the reproducibility of comparative tests D13. Then, with letter of 10 December 2010, they submitted an Auxiliary Request as well as a copy of a submission of 18 June 2002 concerning a deletion objected by the appellants.
- By letter of 24 December 2010, the respondents requested to reject late filed test report D14. Finally, with letter of 22 February 2011, they submitted observations on D14 and filed an auxiliary request, replacing the auxiliary request on file, to address the objection under Article 123(3) EPC.

IX. Claim 1 of the Auxiliary Request read as follows
(compared with Claim 1 as granted, added features are
in indicated bold, deleted features in strike-through):

"1. A hair cleansing composition comprising the
following components:

- (A) glycine and/or alanine 0.01 to 20 wt.%
- (B) one or more acids 0.01 to 5 wt.%
selected from **malic acid,**
succinic acid and maleic acid
- (C) one or more anionic surfactants 5 to 40 wt.%
selected from alkylsulfuric acid salt,
alkylethersulfuric acid salt, N-alkylamido
alkanolsulfuric acid ester salt,

**wherein the total amount of α -hydroxy acids, β -hydroxy
acids, 1,2-dicarboxylic acids, 1,3-dicarboxylic acids,
aromatic carboxylic acids is in the range of 0.01 to 5
wt.%. "**

X. Oral proceedings were held on 22 March 2011. The
respondents submitted two sets of amended Claims 1 to 3
as Auxiliary Requests 2 and 3. The party as of right
(opponents 01) submitted a copy of a
"Handelsregisterauszug" of 24 February 2011. At the end
of the oral proceedings the decision was announced.

XI. Claim 1 of Auxiliary Requests 2 and 3 read as follows
(compared with Claim 1 as granted, added features are
indicated in bold, deleted features in strike-through):

Auxiliary Request 2

"1. A hair cleansing composition comprising the following components:

- (A) glycine and/or alanine 0.01 to 20 wt.%
- (B) one or more acids 0.01 to 5 wt.%

selected from **malic acid**
and maleic acid

~~from α -hydroxy acid, β -hydroxy acid, 1,2-~~
~~dicarboxylic acid, 1,3-dicarboxylic acid,~~
~~aromatic carboxylic acid~~

- (C) one or more anionic surfactants 5 to 40 wt.%
selected from alkylsulfuric acid salt,
alkylethersulfuric acid salt, N-alkylamido
alkanolsulfuric acid ester salt."

Auxiliary Request 3

"1. A hair cleansing composition comprising the following components:

- (A) glycine and/or alanine 0.01 to 20 wt.%
- (B) one or more acids 0.01 to 5 wt.%

selected from **malic acid**
and maleic acid

- (C) one or more anionic surfactants 5 to 40 wt.%
selected from alkylsulfuric acid salt,
alkylethersulfuric acid salt, N-alkylamido
alkanolsulfuric acid ester salt

wherein the total amount of α -hydroxy acids, β -hydroxy acids, 1,2-dicarboxylic acids, 1,3-dicarboxylic acids, aromatic carboxylic acids is in the range of 0.01 to 5 wt.%. "

XIII. The appellants (opponents 02) essentially argued as follows (the party as of right (opponents 01) explained their status as opponent and essentially shared the arguments of the appellants on the other issues):

Party status as opponent

(a) The first opposition was filed in the name of Wella AG, which, in the absence of any transfer of the opposition, remained party to the proceedings and might be represented within the power of their General Authorization (GA 505790.6) by Mr Hirsch. A process of name change was now going ahead, from Wella AG to Wella GmbH, with the consequence that Wella GmbH would be the legal successor of Wella AG, as apparent from a "Handelsregisterauszug" printout handed over at the oral proceedings. As long as the general authorization existed, however, there were no consequences regarding representation. Mr Hirsch declared that he was an employee of Procter&Gamble GmbH and was representing Wella GmbH, not Procter&Gamble, at the oral proceedings before the Board.

Main Request

Extension of the protection conferred (Article 123(3) EPC)

(b) The limitation, in Claim 1 of the Main Request, of the classes of the acids defined in granted Claim 1 to 3 specific acids (malic, succinic and maleic) and the maintenance of the total amount thereof to the level defined in Claim 1 as granted for Component B (i.e. for all the acids, as any other interpretation was not in line with the

description), was such that deleted acids were still encompassed by the open definition of the composition, also if present in amounts going beyond the 5 wt.% limit of Claim 1 as granted. This was apparent if an exemplary composition were considered, which contained 4 wt.% of malic acid and 4 wt.% of an aromatic acid. Since the total amount of the acids making Component B was 8 wt.%, the composition was not encompassed by granted Claim 1. However, since the amount of malic acid was 4 wt.%, and since the amount of aromatic acids was no longer defined by Claim 1 of the Main Request, this exemplary composition was encompassed by Claim 1 of the Main Request. Therefore, the protection conferred by the patent as granted had been extended, contrary to Article 123(3) EPC. Decision T 2017/07 of 26 November 2009 (not published in the OJ EPO) concerned a limitation from a generic class of compounds to specific items thereof, which was a situation similar to the case at issue. By contrast, decision T 1556/07 of 20 May 2010 invoked by the respondents (not published in the OJ EPO either) concerned the deletion of only one of the classes defined in Claim 1 as granted, i.e. dealt with a situation different from and not applicable to the present case, despite the attempt to convey the impression that the wording of Claim 1 as granted had the same meaning as that of Claim 1 of T 1556/07. Claim 1 as granted contained a table that left no possibility of interpretation other than the one given in the description. The 5 wt.% upper quantity limitation applied to the totality of the acids, and the interpretation made in T 1556/07 could not be transposed to the present

case. On the other hand, if the invoked interpretation of T 1556/07 were transposable to the present case, Claim 1 of the Main Request only defined 3 acids, so that all the deleted classes and species of Claim 1 as granted could now be present in any amount. Hence, decision T 2017/07 rather than T 1556/07 dealt with a situation similar to the present case. If the Board nevertheless felt that neither of the two decisions dealt with a situation that was similar to the present case, then an important question of law arose (i.e. whether the indications of weight for the members of the components of an openly defined composition were additive or, if this were not apparent from the claim, whether a recourse to the description was necessary, as established by the EPC) that required clarification by the Enlarged Board of Appeal to restore the legal certainty.

Auxiliary Request 1

Closest state of the art

- (c) D1 related to the technical field of the patent in suit, addressed similar objectives but solved the problem by the synthesis of particular fatty acids in the follicles, i.e. did not concern conditioning of the hair. Also, the compositions of D1 contained amino acids different from glycine and alanine, so that there was no structural similarity between the compositions of D1 and those of the patent in suit. Thus, D1 did not describe the closest prior art.

- (d) By contrast, D4 related to the technical field of the patent in suit (hair conditioning) and addressed the same purposes as the patent in suit (not only the mechanical properties such as disentanglement, feel of the hair and manageability, surface smoothness, softness and body, but also optical properties such as lustre and less matted hair). As regards the objection of the proprietors that D4 concerned the conditioning of the wet hair, the patent in suit did not distinguish between wet and dried hair, Claim 1 concerned a composition, not a process, to attain particular effects, and any improvement on wet hair remained on the dried hair. Moreover, D4 disclosed most of the features of Claim 1, other than the amounts for the anionic surfactant. Thus D4 described the closest prior art.

Problem and solution

- (e) The patent in suit illustrated 5 compositions (Table 1) of the invention and 3 comparative compositions. However, all of the comparative compositions contained, as pH regulator, in addition to NaOH, HCl. Since NaOH should have sufficed for regulating the pH, the presence of HCl in the comparative compositions was not clear and represented a first difference from a composition of the invention. Further differences were apparent from Table 1: Comparative Composition 1 did not contain any amino acid, nor any organic acid (but HCl), i.e. it differed in 3 elements from a composition of the invention; Comparative composition 2 did not contain amino acids and Comparative Composition 3 did not contain organic

acids (both contained HCl), so that they differed in 2 elements from a composition of the invention.

During the examination proceedings, further comparative compositions 4 and 5 were submitted, all containing HCl. Comparative Composition 4 contained, as an amino acid, L-isoleucine, and, as an organic acid, citric acid, so that it differed in 3 elements from a composition of the invention. In Comparative composition 5, malic acid replaced citric acid, so that it differed in 2 elements from a composition of the invention.

- (f) In view of the many differences among the compositions and the comparative compositions, the comparative tests could not be considered to support any improvement of the tested properties such as hair external appearance, softening body, hair manageability and touch.
- (g) Comparative tests D14 (including Composition A1 representing D4 and Composition A2 representing Claim 1 of the patent in suit, wherein the sole difference between them was the acid, i.e. citric in A1 and malic in A2) showed that citric and malic acids imparted equivalent effects on disentanglement of wet hair and on softness (wet and dried hair).
- (h) Consequently, the problem effectively solved over D4 was to provide further compositions.

Obviousness of the solution

- (i) Starting from D4 with the aim of providing further compositions, the skilled person found in D4 itself the suggestion that citric acid might be replaced with succinic acid in the formulation for a composition of D4 in form of a shampoo.
- (j) Moreover, D4 suggested that its ingredients might be used in the formulation of a shampoo. The amounts of anionic surfactants for a shampoo, not mentioned in D4, were conventional for the skilled person, e.g. as illustrated in the shampoo formulations of D10a, or specifically known, e.g. as applied with hydrolysed proteins in D6 Example 8.
- (k) Consequently, the composition of Claim 1 of Auxiliary Request 1 was obvious and Auxiliary Request 1 was not acceptable.
- (l) The argument of the proprietors that multiple choices were necessary to arrive at the claimed composition was not convincing, for the following reasons: the problem over D4 was the mere provision of a further composition and the alleged purposive choices were disclosed options of D4; the claimed combination of glycine, succinic acid and anionic surfactant was defined in Claims 1 and 2 of D4; the choice of anionics (they foam well) and of their proportions were both conventional.

Admissibility of Auxiliary Request 2 and 3

- (m) Apart from the fact that Auxiliary Request 2 suffered from the same alleged extension of the protection conferred as the Main Request, Auxiliary

Requests 2 and 3 were late, i.e. could have been filed well before, as they addressed an old ground of opposition, lack of an inventive step over D4, which was also mentioned in the communication by the Board. Hence, the claim requests should have been filed earlier, e.g. in February, to permit that the parties be prepared to discuss them and their implications. Such was not possible during the oral proceedings. Even if it were true that the parties should be prepared for possible amendments carried out during the oral proceedings, the fact that a multiplicity of possible amendments was possible should also be taken into account. Therefore, they were not admissible.

XIII. The respondents (patent proprietors) essentially argued as follows:

Party status as opponent

- (a) A clarification of the status of opponents 01 (Wella AG) was necessary, as their submissions had been made under different letter headings (such as Wella Service GmbH (letter of 9 October 2006) and Procter&Gamble Service GmbH (letter of 18 January 2011)). Hence, it was not clear whether or not Wella AG still existed, whether a transfer of the opposition had been made, whether or not Mr Hirsch was authorized to represent Wella AG or if he were representing another company. As regards the change of name from Wella AG to Wella GmbH, so that Wella GmbH became the legal successor of Wella AG, from the handed over printout it was apparent that Wella AG no longer existed since 23 February 2011, i.e.

that Wella GmbH came into existence from this date, so that there had been a legal transfer from a AG to a GmbH company. However, it was also apparent that part of the assets had been split and assigned to other companies, so that it was not possible to decide whether or not Wella GmbH was the complete legal successor of Wella AG. The Board should thus assess whether explanation and justification given were sufficient and decide, on the facts of the case, whether Wella GmbH was the legal successor of Wella AG, and might be represented by Mr Hirsch.

Main Request

Extension of the protection conferred (Article 123(3) EPC

- (b) Decision T 1556/07 (referred to by the proprietors) concerned the deletion of a class of compounds defined in Claim 1 as granted, on the basis of an interpretation that its quantity limitation applied to one or more of its components, not to the class as such, so that if one of its components were in the specified amount, then it would not matter what happened to any other components, which might thus be present in any amounts. Instead, decision T 2017/07 (referred to by the appellants) dealt with a limitation of a class to one of its specific compounds, wherein Claim 1 as granted specified a quantity limitation to be applied to the whole class, which limitation was then maintained only for the compound specifically claimed. Hence, the situations dealt with in the two decisions were not comparable and the difference in the interpretation made arose from the different claim wording used.

The present situation concerned the limitation of the classes defined in Claim 1 as granted to some components thereof and did not fit exactly with the situation of each of the mentioned decisions. However, the quantity limitation for component (B) referred to one or more of the acids selected from the specified classes, so that it was very similar to the definition for Component (b) of T 1556/07, i.e. different from the quantity limitation of T 2017/07, which applied to the entire class. Hence, the present situation deserved the interpretation made in T 1556/07, so that the protection conferred by the patent as granted was not extended by the amendments made (Article 123(3) EPC). Otherwise, a referral to the Enlarged Board of Appeal was necessary, because T 2017/07 had created legal uncertainty, after more than 30 years practice in which no problem at all with the discussed weight limitations ever appeared.

Auxiliary Request 1

Closest state of the art

- (c) D1 addressed the same effects as the present invention (better mechanical and optical properties), dealt with the same problem (smoothness, shine, transparency = specular reflection of light), and had the most technical features in common with the patent in suit (shampoos of Examples 6 and 7), so that it described the closest prior art.

- (d) Instead, D4 addressed the mechanical properties of the wet hair rather than the optical properties of the dried hair (smoothness did not necessarily result in better optical properties). Although the compositions of D4 for conditioning the hair might take the form of a cleaning composition, D4 did not contain any embodiment of shampoos, let alone its Examples 1 and 2, so that the exemplified compositions used lower amounts of anionics. Hence, D4 did not describe the closest state of the art.

Problem and solution

- (e) If the skilled person nevertheless started from D4, the problem to be solved was the formulation of a hair cleaning composition providing the hair with good mechanical and optical properties.

Non-obviousness of the solution

- (f) D4 disclosed a composition containing glycine that might be in form of a shampoo. However, to arrive at the claimed composition, the skilled person should make at least 3 further choices (succinic acid instead of citric acid, anionic surfactants among all of the surfactants mentioned as well as their quantity), for which there was no information in D4. Therefore, a composition, containing glycine or alanine, malic, maleic or succinic acid, anionic surfactants in a proportion as defined in Claim 1 in suit, could not be deduced obviously from D4.
- (g) Consequently, Auxiliary Request 1 was not allowable.

Admissibility of Auxiliary Requests 2 and 3

(h) Auxiliary Requests 2 and 3 respectively corresponded to the Main Request and Auxiliary Request 1 on file but succinic acid was deleted, as it was disclosed in D4. Malic and maleic acids were not mentioned in D4. Hence, Auxiliary Requests 2 and 3 limited the claim over D4, to overcome the lack of an inventive step discussed in detail. The amendment made was not severe, so that a totally new discussion was not needed. If the requests were seen as normal reaction of the proprietors against objections such as those under Article 123(3) EPC raised late (T 2017/07 dated back to 2009), and the same fair treatment were given to the parties, Auxiliary Requests 2 and 3 should be admitted.

XIV. The appellants (opponents 02) requested that the decision under appeal be set aside and that the European patent be revoked. This request was supported by the party as of right (opponents 01).

XV. The respondents (patent proprietors) requested that the appeal be dismissed, or, subsidiarily, that the patent be maintained on the basis of Auxiliary Request 1 (filed as Auxiliary Request with letter of 22 February 2011) or on the basis of Auxiliary Request 2 or 3 (both filed at the oral proceedings before the Board).

Reasons for the Decision

1. The appeal is admissible.

Procedural matters - Party status as opponent - Representation

2. From the excerpt of the submitted commercial register ("Handelsregisterauszug") the Board derives that opponents 01 have gone through a change of corporate form, i.e. from stock corporation ("Aktiengesellschaft", AG) to limited liability corporation ("Gesellschaft mit beschränkter Haftung", GmbH) (see top of paragraph 6.b): "Entstanden durch formwechselnde Umwandlung der Wella Aktiengesellschaft (...)". The representative of opponents 01 stated that the conversion was planned for early 2011. From the commercial register excerpt, the Board understands that the conversion became effective between 20 December 2010 (date of the articles of incorporation of the GmbH, see par. 6.a) and 23 February 2011 (last entry to the commercial register, see par. 7.a). The Board and all parties agreed that such conversions *per se* do not affect the rights and obligations between the corporation in question and third parties (including authorizations of representatives). The respondents pointed to certain entries in the commercial register excerpt relating to the assignment of specific businesses and assets to other entities and raised the issue of whether such assignments might affect the comprehensive transfer of all rights and obligations in the context of the change of corporate form. The Board notes that such assignments took place before the conversion from Wella AG to Wella GmbH, i.e. the commission agent business ("Kommissionärgeschäft") was assigned under

an agreement of 29 December 2009 and the assets associated with SCANNON GmbH were assigned under an agreement of 2 June 2010 (see par. 6.b). No similar assignments have been recorded in the context of the change of corporate form. Under these circumstances, the Board does not see any indication which could question the comprehensive transfer of rights and obligations.

2.1 The respondents have also raised questions regarding the letterheads of various submissions by opponents 01. Letters were filed under the letterheads of Wella Service GmbH (letter of 9 October 2006) and of Procter & Gamble Service GmbH (letter of 18 January 2011). However, the signatures of the representatives of opponents 01 were always accompanied by a reference to general authorization 505790.6 recorded with the EPO by opponents 01. In their letter of 18 January 2011, reference was made to "Wella AG" above the signature. Authorisations to represent parties in proceedings before the EPO are always given to (one or a plurality of) individual professional representatives, not to their employers or to any legal entity set up by professional representatives to conduct their business. It is therefore irrelevant whether a professional representative is employed by the party he or she represents or by any other legal entity. As long as there are no special circumstances which may cast doubt on the identity of the represented party or on the representative's entitlement to act on behalf of the party, it is also irrelevant which letterhead is used.

2.2 The representative of opponents 01 (Mr. Hirsch) stated during the oral proceedings before the Board that he

- 3.1 Succinic acid [HOOC-(CH₂)₂-COOH] (IUPAC name butanedioic acid) is also known as ethane-1,2-dicarboxylic acid. Malic acid [HOOC-CH₂-CHOH-COOH] (hydroxybutanedioic acid) is also known as hydroxysuccinic acid. Maleic acid is the (cis form)-Butenedioic acid (IUPAC name (Z)-Butenedioic acid) of formula HOOC-CH=CH-COOH. Therefore, succinic, malic and maleic acids are all (ethane or ethene) 1,2-dicarboxylic acids and malic acid also belongs to the class of α -hydroxy acids.
- 3.2 The amendments made to granted Claim 1 thus consist in:
- (a) the deletion of the classes β -hydroxy acid, 1,3-dicarboxylic acid and aromatic carboxylic acid; and
 - (b) the restriction or narrowing down of the classes α -hydroxy acid and 1,2-dicarboxylic acid to three of their specific acids, all belonging to the class 1,2-dicarboxylic acid, one of which (malic) also belongs to the class of α -hydroxy acids.
- 3.3 Whilst the definition of the chemical nature of the component (B) of the composition defined in Claim 1 as granted has been amended as indicated above, the amount of component (B) has not been altered.

Scope of Claim 1 as granted

4. Claim 1 as granted essentially consists of a table with three columns, the first identifying the component (A, B or C), the second defining its chemical nature and the third specifying the amount of the component.
- 4.1 Having regard to the itemization of component, chemical nature and amount (of the component) given in Claim 1,

it is immediately apparent that the amount defined in Claim 1 relates to the component as such, rather than to each of its possible, specific constituents.

4.2 This immediate recognition is fully in line with the description of the patent in suit, as apparent from Paragraph [0012], stating "As the component (B), one or more of the above-described acids can be used. The component (B) is added in a proportion of from 0.01 to 5 wt.%, preferably from 0.05 to 3 wt.%, notably from 0.1 to 2 wt.% based on the whole composition.". No further passages of the description deal with the proportion of component (B). In the examples (Table 1), an amount of acid of 0.5 wt.% is illustrated.

4.3 Claim 1 as granted thus encompasses any hair cleansing composition comprising 0.01 to 20 wt.% of component (A), 0.01 to 5 wt.% of component (B) and 5 to 40 wt.% of component (C). As regards component (B), Claim 1 as granted unambiguously requires that it be one or more acids selected from α -hydroxy acid, β -hydroxy acid, 1,2-dicarboxylic acid, 1,3-dicarboxylic acid and aromatic carboxylic acid and that the total amount of the one or more acids making component (B) be in the range of 0.01 to 5 wt.%.

Scope of Claim 1 of the Main Request

5. Claim 1 of the Main Request encompasses any hair cleansing composition comprising 0.01 to 20 wt.% of component (A), 0.01 to 5 wt.% of component (B) and 5 to 40 wt.% of component (C). As regards component (B), Claim 1 of the Main Request requires that it be one or more acids selected from malic, succinic and maleic

acids and that their total amount be in the range of 0.01 to 5 wt.%. No requirement whatsoever is established for 1,2-dicarboxylic acids other than malic, succinic and maleic acids. Nor is any requirement stipulated for e.g. 1,3-dicarboxylic, β -hydroxy or aromatic carboxylic acids.

Alleged extension of the protection conferred

6. To illustrate with a case in point whether or not the protection conferred has been extended, the Board considers a hair cleansing composition comprising, in addition to components (A) and (C) within the amounts given in Claim 1, 4 wt.% of malic acid and 6 wt.% of fumaric acid (malic and fumaric acids are illustrative 1,2-dicarboxylic acids according to the patent in suit, Paragraph [0010], first sentence). Fumaric acid is the (trans form)-Butenedioic acid (IUPAC name (E)-Butenedioic acid) of formula HOOC-CH=CH-COOH .
- 6.1 The illustrative composition is not encompassed by Claim 1 as granted, for the following reasons:
 - (a) the amount of fumaric acid is 6 wt.% (i.e. the amount of one item of one of the defined classes of acids making up Component B is already above 5 wt.% as defined); and,
 - (b) since malic and fumaric acids are both 1,2-dicarboxylic acids, Component (B) is made up of 1,2-dicarboxylic acids in a total amount of 10 wt.% (again, well above 5 wt.% as defined).
- 6.2 By contrast, the same illustrative composition is encompassed by Claim 1 of the Main Request, as:

- (a) malic acid is present in amount of 4 wt.%, i.e. within the range of 0.01 to 5 wt.% as defined; and,
- (b) since Claim 1 of the Main Request no longer defines any quantitative conditions for the class of 1,2-dicarboxylic acids, let alone for fumaric acid, the presence of 6 wt.% of fumaric acid (a 1,2-dicarboxylic acid not defined as such in Claim 1 of the Main Request) is not excluded by the open formulation of Claim 1 of the Main request (as comprising = including what is defined but not excluding further components not defined, unless otherwise specified).

6.3 The Board arrives at the same conclusion if the illustrative composition mentioned by the parties during the appeal proceedings is considered, namely a hair cleansing composition comprising 4 wt.% of malic acid and 4 wt.% of an aromatic carboxylic acid, in addition to components (A) and (C) within the amounts given in Claim 1. Phthalic acids are illustrative aromatic carboxylic acids according to the patent in suit, Paragraph [0010], last sentence. Phthalic acids include o-phthalic acid, i.e. benzene-1,2-dicarboxylic acid of formula $C_6H_4-1,2-(COOH)_2$. Hence, considering the 4 wt.% of malic acid and the fact that malic and o-phthalic acids are both 1,2-dicarboxylic acids, Component (B) of the illustrative composition is made up of two 1,2-dicarboxylic acids in a total amount of 8 wt.%, i.e. above 5 wt.% as defined. Therefore, the illustrative composition is not encompassed by Claim 1 as granted.

6.4 By contrast, again, the same illustrative composition is encompassed by Claim 1 of the Main Request, as:

- (a) malic acid is present in amount of 4 wt.%, i.e. within the defined range of 0.01 to 5 wt.%. And,
- (b) Claim 1 of the Main Request no longer defines any quantitative conditions for the class of 1,2-dicarboxylic acids, let alone for o-phthalic acid, so that the presence of 4 wt.% of o-phthalic acid (a 1,2-dicarboxylic acid) is not excluded by the open formulation of Claim 1 of the Main request.

6.5 Therefore, embodiments that were not encompassed by Claim 1 as granted are in fact encompassed by Claim 1 of the Main Request, so that the protection conferred has been extended, contrary to Article 123(3) EPC.

6.6 Consequently, the Main Request is not allowable.

Alleged divergence between two decisions of the Boards of Appeal - Request of a referral to the Enlarged Board of Appeal

7. It follows from the foregoing that in the present case the extension of the protection conferred is immediately apparent, so that the Board need not refer to the decision invoked by the respondents (T 1556/07) nor to that invoked by the party as of right (T 2017/07).

7.1 As to the request of the parties for a clarification of the impact on the present case of the decisions invoked, the Board, by way of *obiter dictum*, may only note that:

7.1.1 T 2017/07 concerned the following amended Claim 1 (compared with Claim 1 as granted):

"1. A hair dye composition which comprises (A) an acid dye and (B) an alkylene carbonate having 3-5 carbon

*atoms ~~in total~~, said composition exhibiting a pH of 2-6, and having a buffer capacity of 0.007-0.5 gram equivalent/L, wherein the content of the alkylene carbonate ~~having 3-5 carbon atoms in total~~ is 0.5-50% by weight, **the alkylene carbonate being propylene carbonate**, and wherein the composition contains neither benzyloxyethanol nor benzyl alcohol."*

The amendment concerned the narrowing down of a class of compounds (alkylene carbonate) to an entity thereof (propylene carbonate).

The competent Board decided that the amendment was not allowable under Article 123(3) EPC, as other alkylene carbonates with 3-5 carbon atoms might be present in any amount after the amendment.

The decision was based *inter alia* on the implicit proviso (Claim 1 as granted) that Component B was to be 0.5-50 wt.% in total.

- 7.1.2 T 1556/07 concerned the following amended Claim 1 (compared with Claim 1 as granted):
- "1. Composition for the decolouring or bleaching of hair, which is mixed directly prior to use with an aqueous oxidizing agent preparation and is characterized in that it is in the form of a bleaching composition suspension and comprises a combination of (a) 0.1 to 80 per cent by weight of at least one organically lipophilic compound from the group of plant and animal fats, oils and waxes, of paraffin hydrocarbons, of higher alcohols and ethers, of aliphatic and aromatic esters, and of silicone oils;*

- (b) 0.1 to 40 per cent by weight of at least one inorganic or organic thickener with lipophilic character which, with the lipophilic compound, forms an oleogel or lipogel which is chosen from ~~alkali metal carboxylates~~, alkaline earth metal carboxylates, aluminium carboxylates, copolymers of alkenes, cross-linked organic polymers and lipophilicized sheet silicates, or mixtures of these thickeners;
- (c) 0.1 to 40 per cent by weight of at least one inorganic or organic thickener with hydrophilic character, which is chosen from polymers from the group of celluloses, alginates, polysaccharides and acrylic acids;
- (d) 10 to 65 per cent by weight of at least one inorganic persalt;
- (e) 10 to 45 per cent by weight of at least one alkaline-reacting salt;
- and optionally auxiliaries and additives."

The amendment concerned the deletion of one option for component (b), the class "alkali metal carboxylates".

The Board found that the wording of Claim 1 was clear per se, so that to fulfil its requirements it was sufficient that the composition contained 0,1 to 40 wt% of at least one of the thickeners chosen from the given list of classes, or 0,1 to 40 wt% of any mixtures of them, independently of whether or not further thickeners were present (Point 3.2.2 of the Reasons).

That clear definition could not be changed by a general statement in the description that a total amount of 0.1 to 40 wt% of thickeners should be used (Point 3.2.3 of the Reasons). Hence, the decision did not acknowledge

- any implicit proviso by Claim 1 as granted that component (b) was to be 0.1-40 wt.% in total.
- 7.2 Since the present case shares with T 2017/07 a narrowing down of a claimed class (1,2-dicarboxylic and α -hydroxy acids) to some of its entities, the conclusions of T 2017/07 apply to the present case.
- 7.3 As a matter of fact, the Board arrives at the same conclusion as T 2017/07, and the implicit proviso cited by T 2017/07 is in the present case rather explicit (Point 4.1, *supra*), so that no divergence from T 2017/07 arises.
- 7.4 Consequently, the narrowing down of the classes 1,2-dicarboxylic and α -hydroxy acids to 3 specific entities thereof, as carried out for Component (B) in the definition of Claim 1 of the Main Request, which openly defines a composition, broadens the scope of protection, with the consequence that such amended claim in appeal proceedings extends the protection conferred by the granted patent (Article 123(3) EPC).
- 7.5 That the narrowing down of classes to species as decided in T 2017/07 is a different situation from the deletion of a class as in T 1556/07 is acknowledged in T 1556/07 itself (Point 3.2.5 of the Reasons), and thus need not be detailed further.
- 7.6 Given the circumstances (a decision is possible on the facts of the case, which arrives at the same conclusion as a previous decision of another Board on a similar case (T 2017/07)), it may be left undecided whether or not in the present case the deletion of a class (e.g.

aromatic acids, 1,3-dicarboxylic acids, β -hydroxy acids) from the definition of Component (B) in Claim 1 of the Main Request extends the protection conferred, i.e. whether or not the *ratio* of T 1556/07 applies.

7.7 Attention is however drawn to the fact that the present situation is rather different from that decided in T 1556/07, at least because the definition of the amount of Component (B) in Claim 1 is specifically itemized in its own column in the Table and is clearly in line with the disclosure of the amount of component (B) in the patent specification, so that the requirement of how much of Component (B) can be present in the claimed composition is unambiguously fixed (Points 4, *supra*).

7.8 Less important differences arise from the fact that not one (as in T 1556/07) but more classes of Claim 1 as granted have been deleted and from the fact, apparent from Paragraphs [0009] and [0010] of the patent in suit, that illustrative acids such as mandelic, salicylic, o- and m-phthalic acids belong to more than one of the classes α -hydroxy acid, β -hydroxy acid, 1,2-dicarboxylic acid, 1,3-dicarboxylic acid and aromatic carboxylic acid. Hence, the classes defined in Claim 1 as granted overlap, with the result that the deletion of one class, e.g. aromatics, does not remove all of its elements but only those other than α -hydroxy, β -hydroxy, 1,2-dicarboxylic or 1,3-dicarboxylic acids.

7.9 Therefore, the situation at issue is different from that decided in T 1556/07, so that it is not apparent that the *ratio* of T 1556/07 applies in the present case.

7.10 Since a decision is possible on the facts of the case at issue, which arrives at the same conclusion as a previous decision of another Board on a similar case (T 2017/07), there is no need for a referral to the Enlarged Board of Appeal in view of the alleged contradiction between the two decisions invoked. Nor is it apparent that the deletion of a class of chemical entities in a claim for a composition openly formulated concerns a point of law of fundamental importance that cannot be decided on the facts of each case. Therefore, the request for a referral is refused.

Auxiliary Request 1

Amendments

8. Compared with Claim 1 as granted, Claim 1 according of Auxiliary Request 1 comprises the feature

"(B) one or more acids 0.01 to 5 wt.%
selected from malic acid,
succinic acid and maleic acid".

However, this feature is in a context "wherein the total amount of α -hydroxy acids, β -hydroxy acids, 1,2-dicarboxylic acids, 1,3-dicarboxylic acids, aromatic carboxylic acids is in the range of 0.01 to 5 wt.%".

8.1 The amended feature thus implies that one or more of the three acids as mentioned is present within the amounts given but in a context where the total amount of the acids defined should not be more than 5 wt.%, hence as in Claim 1 as granted.

8.2 No further objections under Article 123(3) EPC were raised by the parties. The Board has no reason to take

a different position. As Auxiliary Request 1 falls for lack of an inventive step (*infra*), the Board need not detail further why Auxiliary Request 1 is admissible.

Alleged insufficiency of the disclosure and lack of novelty

9. The originally invoked grounds of insufficiency of the disclosure and lack of novelty (Articles 100(a)(b) EPC 1973) were no longer pursued by opponents 02 during the opposition proceedings, so that the decision under appeal did not deal with them, nor during the appeal proceedings either. The Board has no reason to take a different position on these issues.
10. As regards novelty, the distinctions between the claimed subject-matter and the disclosure of the closest prior art document will become apparent from the following analysis.
11. Therefore, these grounds too need not be dealt with in further detail.

Closest prior art

12. The patent in suit concerns a hair cleansing composition having the effect of improving optical or mechanical properties of hair (Paragraph [0001]).
 - 12.1 Such compositions are known from D4, considered to be the closest prior art document by the appellants, as well as from D1, considered to be the closest prior art document by the respondents.

12.2 Having regard to the Case Law of the Boards of Appeal (6th edition 2010, I.D.3.1 to 3.3.) (i.e. the closest state of the art is a prior art disclosing subject-matter aiming at the same objective or conceived for the same purpose, possibly addressing the same or a similar technical problem, or at least relating to the same or closely related technical field, and having the most relevant technical features in common, i.e. requiring the minimum of structural modifications), the Board considers that D4 rather than D1 describes the closest prior art, for the following reasons:

12.2.1 The patent in suit aims at overcoming the temporary or insufficient effect of improving optical or mechanical properties of hair such as lustre, softness and body by the known hair cleansing compositions (Paragraph [0002]), in particular of permed or bleached hair, as illustrated by the examples. These objects are achieved by the combined use of glycine or alanine and a specific acid compound with an anionic surfactant in a particular ratio (Paragraph [0005]).

12.2.2 D1 concerns a hair treatment composition and its use for enhancing physical properties of the hair fibre such as shine, smoothness, manageability, softness and cuticle integrity.

D1 discloses a hair treatment composition for the supply of precursors of hair integral lipid fatty acids to the hair follicle comprising:

(i) a first fatty acid precursor which is an amino acid selected from leucine, isoleucine, methionine and valine, and mixtures thereof, which precursor is present at levels of from 0.01 to 20% by weight based

on the total weight of the composition, and from 20% to 100% by weight based on the total weight of amino acids present in the composition,

(ii) from 0.01% to 20% by weight of a second fatty acid precursor selected from sugars, mono-, di-, and tricarboxylic acids and salts thereof, which second fatty acid precursor is able to donate a two or three-carbon unit for fatty acid chain elongation,

(iii) at least one surfactant selected from anionic, amphoteric, zwitterionic and cationic surfactants and mixtures thereof (Claim 1).

The composition of D1 can be formulated as a shampoo composition, in which at least one surfactant is present in a total amount of from 0.1 to 50% by weight of the composition (Claim 7).

Exemplary mono-, di- and tri-carboxylic acids according to D1 include citric acid (page 6, lines 24-26).

Examples 1 to 3 illustrate the incorporation into the lipids of follicles, i.e. into species such as 18-methyleicosanoic acid (18MEA), of radiolabelled isoleucine, acetate and glucose, after incubation for 2 days at 37°C in air and >95% humidity.

Examples 6 and 7 illustrate two shampoo compositions, clear or opacified, each comprising 20 wt.% of sodium lauryl ether sulphate (2EO, 70% active), 0.5 wt.% citric acid and 0.1 wt.% isoleucine. These shampoos are said to impart shine and smoothness to the hair.

Hence, D1 addresses the improvement of effects such as shine, smoothness, manageability and softness, like the

patent in suit, but the improvement is consequential to the nourishing of the cuticle with precursors of hair integral lipid fatty acids, which precursors are thus essential ingredients of the compositions of D1. In fact, the cleansing compositions of D1 must contain amino acids such as leucine, isoleucine, methionine and valine (not however either glycine or alanine, which feature in the patent in suit). Also, malic, maleic and succinic acids are not mentioned by D1.

Summing up, D1 concerns compositions for nourishing the hair cuticle, which are not intended for application on permed or bleached hair, like the patent in suit.

12.2.3 D4 instead concerns a hair treating composition and its use for improving the condition of hair (title).

According to D4, the structure of the hair is damaged by means of frequent bleaching, permanent waving and dyeing and frequent washing of the hair with degreasing surfactants. The hair becomes brittle and it loses its lustre. Moreover, the hair is charged with static electricity during combing and the roughened hair surface causes matting and knotting of the hair. This makes combing much more difficult.

Thus, D4 addresses the problem of providing a hair treating composition and a hair treating process based on more suitable active ingredients that condition the hair and accordingly eliminate the disadvantages described above for permed or bleached hair.

The solution to the problem consists in a hair treating composition, which is free of cationic surfactants and comprises

- (a) 0.5 to 25 per cent by weight glycine,
- (b) 1.0 to 10 per cent by weight of a physiologically compatible aliphatic organic acid which is free of amino groups,
- (c) 0.5 to 10 per cent by weight of a substance selected from the group consisting of wax, an oil component or both; and
- (d) balance additional components conventionally used for hair treating compositions selected from the group consisting of water, lower aliphatic alcohols, polyhydric alcohols, anionic, amphoteric, or nonionogenic surfactants, natural, modified natural or synthetic polymers, thickeners, hair care materials, dyestuffs, pigments, perfume oils, antioxidizing agents, and preservatives (Claim 1).

The physiologically compatible aliphatic organic acid which is free of amino groups is selected from a group including succinic and citric acids (Claim 2).

Hence, D4 discloses hair treatment compositions comprising glycine, anionic surfactants and possibly succinic acid, and their use on very matted and porous hair fibres, to improve both mechanical and optical properties (Column 3, lines 16-27), as does the patent in suit, with less structural modifications than D1.

12.3 Therefore, D4 discloses the closest prior art.

Problem and Solution

13. Only JP-10-236 927 is acknowledged as prior art in the application as filed, and on the basis of which the patent in suit was granted, which however is a family member of D1. Thus, the application as filed, and on the basis of which the patent in suit was granted, does not acknowledge D4 as prior art. Hence, the prior art available to the Board (D4) is different from the prior art that was at the disposal of the applicants (D1), so that the technical problem over D4 should be determined.

13.1 According to the Case Law of the Boards of Appeal (6th edition 2010, I.D.4.1), objective criteria must be used to determine the technical problem that can be seen to have been actually solved (within the whole scope of the claim) having regard to the closest prior art, i.e. the technical problem should be determined from what the invention defined in Claim 1 actually accomplishes over the closest state of the art, namely D4.

13.2 The patent in suit illustrates 5 compositions as claimed and three comparative compositions, as shown in Table 1. With letter of 10 December 2010, further (comparative) examples were submitted, in a more complete Table 1, which was annexed to the submission dated 18 June 2002, and which is reproduced here.

TABLE 1'

Component (wt.%)	Invention product						Comparative product				
	1	2	3	4	5	6	1	2	3	4	5
Sodium POE (2.0) dodecylsulfate	15.0	15.0	15.0	15.0	15.0	12.0	15.0	15.0	15.0	15.0	15.0
Sodium dodecylsulfate						3					
Chloro-O-[2-(hydroxy-3-(trimethylammonio)-propyl)hydroxyethyl]cellulose	0.5		0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5
Glycine	1.0	2.0	1.0	1.0		1.0			0.5		
α-Alanine					1.0	0.1					
L-isoleucine										1.0	1.0
Malic acid	0.5	0.5			0.5	0.25		0.5			0.5
Maleic acid			0.5			0.25					
Succinic acid				0.5							
Citric acid										0.5	
pH regulator (HCl)							q.s.	q.s.	q.s.	q.s.	q.s.
pH regulator (NaOH)	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.	q.s.
Perfume	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Water	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance
PH	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Hair external appearance	A	A	A	A	A	A	C	B	C	C	B
Softening/body	C	C	C	C	A	C	B	A	C	B	B
Hair manageability	A	A	A	A	A	A	C	C	B	B	C
Touch	A	A	A	A	A	A	C	B	B	C	C

NOTE: Invention product Nos. 1-5, and Comparative product Nos. 1-3 are the same data as shown in the Table on page 11 of the present specification. Invention product No. 6 and Comparative product Nos. 4-5 are newly added.

13.3 Also the opponent appellants submitted comparative tests, *inter alia* D14.

13.4 As established in the Case Law (*supra*, I.D.4.4, particularly T 1188/00), these findings can be used to formulate the problem solved over D4 only if

- (a) the alleged effects are derivable from the problem mentioned in the application as filed,
- (b) they are convincingly shown to have their origin in the feature distinguishing the claimed compositions from those of D4 (T 197/86, OJ EPO 1989, 371, Point 6.1.3 of the Reasons); and, in the affirmative case,
- (c) it is plausible that they are attained over the whole breadth of the claims.

13.5 The effects alleged to have been attained are mentioned in Table 1 as well as in the application as filed (page 1, lines 6-12), and on the basis of which the patent in suit was granted. Hence, the derivability

from the problem mentioned in the application as filed is apparent.

13.6 As regards the comparative nature of the compositions illustrated by the examples of the patent in suit, none of them (e.g. Comparative Example 4) comprises glycine or alanine and citric acid (as disclosed by D4), so that no improvement over D4 can be derived from Table 1.

13.7 As to D14, it compares compositions of D4 (e.g. A1) with compositions of Claim 1 of Auxiliary Request 1 (e.g. A2). However, the experiments illustrated by D14 were carried out for a reduced incubation time (5 instead of 30 minutes as in the patent in suit) and on natural rather than on permed or bleached hairs, as in the patent in suit, so that the alleged effects cannot result from the only difference alleged (kind of acid).

13.8 It follows from the foregoing that the problem effectively solved by the claimed subject-matter over D4 was to provide further cosmetic compositions.

Obviousness of the solution

14. In its examples, D4 illustrates two compositions and the relevant use thereof as follows:

14.1 Example 1

Hair Rinse	
10.00 g	glycine
5.00 g	citric acid, anhydrous
1.20 g	cetylstearyl alcohol
1.20 g	petrolatum
0.60 g	lauryl alcohol, oxyethylated twice
0.20 g	salicylic acid

0.15 g	sodium cetylsulfate
0.15 g	sodium stearylsulfate
0.50 g	perfume oil
81.00 g	water
100.00 g	

The application of 35 g of the hair rinse on very matted and porous hair, which had been dried with a towel after washing, clearly disentangles the hair, already during the application of the hair rinse. After action for a short period of time, the hair is thoroughly rinsed with warm water. The treatment results in a very smooth, cosmetically pleasant feel of the hair and a very good combing ability when wet (Column 5, lines 18-26).

14.2 Example 2

Hair Care Emulsion

5.00 g	glycine
2.50 g	citric acid, anhydrous
1.20 g	cetylstearyl alcohol
1.20 g	petrolatum
0.60 g	lauryl alcohol, oxyethylated twice
0.50 g	perfume oil
0.20 g	salicylic acid
0.15 g	sodium cetylsulfate
0.15 g	sodium stearylsulfate
88.50 g	water
100.00 g	

After application of the hair care emulsion, in the same manner as in example 1, the hair becomes clearly less matted and can be combed more easily. The effectiveness of the hair care emulsion is somewhat lower than that of the hair rinse of Example 1, because of the reduced content of glycine and citric acid, but it is completely satisfactory (Column 5, lines 40-46).

- 14.3 The compositions illustrated in the examples of D4 include all of the elements defined in Claim 1 of Auxiliary Request 1 apart from e.g. succinic acid and the required amount for the anionic surfactants (5-40 wt.%). The compositions illustrated by D4 are not cleaning compositions and use lower amounts of anionics.
- 14.4 However, D4 stresses that each element mentioned in the hair rinse of Example 1 and the hair care emulsion of Example 2, or two or more together, may find useful application in compositions other than those illustrated in the examples (Column 5, lines 47-50). According to D4, the further preferred preparations (other than hair rinses and hair care emulsions) include shampoos (Column 3, lines 65-68).
- 14.5 Hence, D4 discloses that its hair treatment compositions can be formulated as a shampoo, which notably is a cleansing composition, in which the elements illustrated in the examples may find useful applications, so that the mentioned shampoo would in fact be a hair cleansing and conditioning composition.
- 14.6 The hair treatment compositions illustrated in the examples of D4 contain glycine (amino acid) and citric acid (organic aliphatic acid), in amounts as claimed in Claim 1 of Auxiliary Request 1. As regards the organic aliphatic acid, D4 expressly mentions succinic acid as an alternative to citric acid.
- 14.7 The surfactants illustrated in Examples 1 and 2 of D4, sodium cetylsulfate and sodium stearylsulfate, are alkylsulfuric acid salts falling under the definition

of component (C) of Claim 1 of Auxiliary Request 1, apart from their concentration, which is too low.

14.8 D9a and D10a both concern the common general knowledge of the skilled person on surfactants for shampoos (D9a, page 432, sentence before "Principal and Auxiliary Surfactants"; D10a, Chapter XIX Shampoos, page 88, Synthetic Detergents).

14.8.1 D9a discloses that "anionics are by far the most widely used surfactants because of their superior foaming properties and lower cost" (page 432, "Principal and Auxiliary Surfactants", last paragraph, second sentence); "the most widely used anionic detergents in current shampoos are the alkyl sulphates, especially those derived from lauryl and myristyl alcohols" (page 433, "Alkyl Sulphates", first sentence); "usual concentrations of lauryl sulphate in shampoos range between 7 and 15 percent (anhydrous product)" (page 434, second full paragraph, last sentence).

14.8.2 D10a discloses that: "the anionics are the most widely used, with the nonionics a distant second" (page 88, "Synthetic Detergents", last sentence); "[The anionics] are generally superior to other classes in terms of foaming, cleaning, and end result attributes" (page 88, "Anionics", second sentence); "The alkyl sulfates soon became the backbone of the shampoo market and continue to hold that position", "the most useful are those of C₁₂ to C₁₈ series", "The primary alkyl sulfates, particularly those containing a mixture of C₁₂, C₁₄ and C₁₆ compounds, give excellent foam and leave the hair feeling smooth and soft" (page 89, last two paragraphs); as a case in point, the shampoo illustrated by Formula

44 on page 90 of D10a contains 29 wt.% of sodium lauryl sulfate.

14.9 Hence, the suggested formulation of the hair treatment composition of D4 as a shampoo implies an amount of anionic surfactants within the known concentration levels mentioned by D9a and D10a, i.e. that the levels of the anionics illustrated by D4 be raised to the known levels, which notably lie above 5 wt% (the minimum requirement of Claim 1 of Auxiliary Request 1).

14.10 Therefore, the hair cleansing composition of Claim 1 of Auxiliary Request 1 is obvious from the implementation of the teaching of D4 (shampoo) in the light of the common general knowledge taught by D9a and D10a.

14.11 Auxiliary Request 1 is thus not allowable either.

Auxiliary Requests 2 and 3 - Admissibility

15. Auxiliary Requests 2 and 3 were filed during the oral proceedings before the Board. In both requests, succinic acid is deleted from Component (B) of the claimed hair cleansing composition, leaving only malic acid and maleic acid as possible ingredients of component (B). Auxiliary Request 3 additionally addresses the issue under Article 123(3) EPC raised by opponents 01 in their letter of 18 January 2011 in the same manner as the Auxiliary Request filed with letter dated 22 February 2011 (by adding a proviso concerning the total amount of compounds defined as Component (B) in the patent as granted).

15.1 The respondents explained that the deletion of succinic acid from Component (B) was made to provide a stronger limitation against the prior art, namely D4. The Board, in the communication sent with the summons to oral proceedings on 2 November 2010, indicated that the parties should be prepared to possibly discuss both D1 or D4 as representative of the closest prior art (point 10.1.2). The Board is not convinced by the respondents' argument that the opponents should have expected and been prepared for any amendments to the respondents' requests which may be aimed at the distinction from D4. It is the patent proprietors' role to decide whether and when any auxiliary claim requests should be filed. The patent proprietors may have specific reasons to include or not to include certain subject-matter in their claims, which reasons are not always known to the opponents. The opponents cannot usually be expected to prepare arguments against any unforeseeable claim requests that may be filed during oral proceedings.

15.2 The ingredients of Component (B) of the claimed hair cleansing composition included succinic acid in the patent as granted, in the patent as maintained in the appealed decision and in all claims filed during appeal proceedings before the date of the oral proceedings. Succinic acid was disclosed in D4, which has been extensively discussed as potential closest prior art. The removal of succinic acid from the claims makes it necessary to discuss afresh which documents may represent the closest prior art. The situation is different from customary amendments which remove the claimed subject-matter from the prior art by adding additional features. Such amendments usually allow the discussion under Article 56 EPC to continue where it

has ended before additional features were introduced. In the present case, where D4 should be sidestepped by shifting the focus of the claimed invention, the amendment made in Auxiliary Requests 2 and 3 would necessarily reopen the debate on the closest prior art and thereby make it necessary to start the discussion under Article 56 EPC from scratch. In the Board's view, the opponents could not reasonably be expected to deal with the proposed amendment at the oral proceedings.

15.3 The board cannot follow the respondents' argument that not only Auxiliary Requests 2 and 3 but also the objections of opponents 01 under Article 123(3) EPC were filed late and that the principle of equal treatment required the admission of Auxiliary Requests 2 and 3. D4 was filed with the notice of opposition of opponents 02 in 2004. In the statement setting out the grounds of appeal, D4 was discussed as potential closest prior art long before the issue under Article 123(3) EPC was raised by opponents 01 in January 2011. The respondents therefore had ample time to prepare auxiliary requests in view of D4. Moreover, the respondents had the opportunity to react to the issue under Article 123(3) EPC, and they indeed filed Auxiliary Request 1 to address said issue one month after the issue was first raised and one month before the oral proceedings. On the other hand, the opponents would have to react immediately to Auxiliary Requests 2 and 3, unless the oral proceedings were adjourned.

15.4 In view of Article 13, in particular Article 13(3), of the Rules of Procedure of the Boards of Appeal (RPBA, OJ EPO 2007, 536), the late filed Auxiliary Requests 2 and 3 are not admitted into the proceedings.

Conclusion

16. None of the admissible claim requests presented by the patent proprietors complies with the EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

S. Fabiani

J. Riolo