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**Datasheet for the decision  
of 13 September 2022**

**Case Number:** T 2955/19 - 3.3.07

**Application Number:** 09765045.1

**Publication Number:** 2358342

**IPC:** A61K8/44, A61Q5/02, A61K8/39,  
A61K8/60

**Language of the proceedings:** EN

**Title of invention:**  
CLEANSING COMPOSITION

**Patent Proprietor:**  
Kao Germany GmbH

**Opponent:**  
The Procter & Gamble Company

**Headword:**  
Cleansing composition / KAO

**Relevant legal provisions:**  
EPC Art. 54, 123(2), 84, 56  
EPC R. 80  
RPBA Art. 12(4)  
RPBA 2020 Art. 13(2)

**Keyword:**

Novelty - main request, auxiliary requests 1-3 (no)  
Amendments - auxiliary requests 4-7 - allowable (no) -  
auxiliary request 8 - allowable (yes)  
Claims - clarity - auxiliary request 8 (yes)  
Inventive step - auxiliary request 8 (yes)  
Late-filed evidence - admitted (yes)  
Amendment after summons (no)

**Decisions cited:**

T 0657/11, T 0116/18, G 0003/14



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**Case Number: T 2955/19 - 3.3.07**

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.07**  
**of 13 September 2022**

**Appellant:** Kao Germany GmbH  
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**Appellant:** The Procter & Gamble Company  
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**Representative:** P&G Patent Germany  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
5 August 2019 concerning maintenance of the  
European Patent No. 2358342 in amended form.**

**Composition of the Board:**

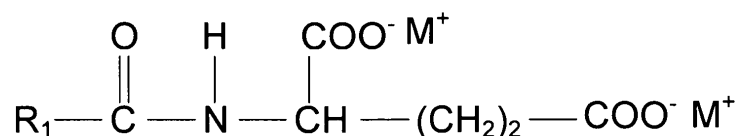
**Chairman** A. Usuelli  
**Members:** M. Steendijk  
Y. Podbielski

### Summary of Facts and Submissions

I. European patent 2 358 342 ("the patent") was granted on the basis of twelve claims.

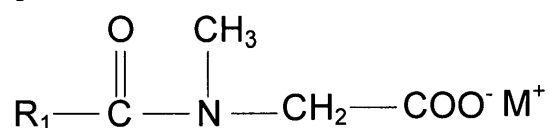
Independent claim 1 as granted related to:

"Aqueous cleansing composition for keratin fibres especially for human hair characterised in that it comprises at least one glutamate surfactant according to the general formula



wherein R<sub>1</sub> is a saturated or unsaturated, straight or branched alkyl chain with 7 to 17 C atoms, preferably with 9 to 13 C atoms, and M is H, sodium or potassium, and

at least one sarcosinate surfactant according to the general formula



wherein R<sub>1</sub> is a saturated or unsaturated, straight or branched alkyl chain with 7 to 17 C atoms, preferably with 9 to 13 C atoms and M is H, sodium or potassium and free from alkyl sulphate and alkyl ether sulphate type of surfactants."

II. The patent was opposed on the grounds that its subject-matter lacked novelty and inventive step, and that it comprised subject-matter extending beyond the content

of the application as originally filed. Appeals were filed by the patent proprietor and the opponent against the interlocutory decision of the opposition division that the patent as amended in accordance with auxiliary request 8 met the requirements of the EPC.

The decision was based on the main request relating to the patent as granted, auxiliary requests 1-7 filed on 27 May 2019 and auxiliary request 8 submitted during the oral proceedings held on 28 June 2019.

In its decision the opposition division cited *inter alia* the following documents:

D2: WO 2009/125367 A1  
D3: US 2008/0008672 A1  
D4: JP 2005-179197,  
D4a: English translation of D4  
D5: DE 199 37 917 A1  
D6: Database GNPD (online) MINTTEL, "Herbs Shampoo", AN: 1019779, 19.12.2008  
D7: Database GNPD (online) MINTTEL, "Daily Shampoo", AN: 865201, 15.02.2008  
D8: Database GNPD (online) MINTTEL, "Color Violet Shampoo", AN: 841637, 17.01.2008  
D9: Database GNPD (online) MINTTEL, "Colour Care Shampoo", AN: 694777, 24.04.2007  
D17: WO 91/14759 A1  
D18: Comparative test report of 20.05.2019

The opposition division arrived at the following conclusions:

- (a) The aqueous cleansing composition for keratin fibres comprising a glutamate surfactant and a sarcosinate surfactant defined in claim 1 as

granted lacked novelty in view of documents D2-D5, D7-D9 and D17.

- (b) Claim 1 of auxiliary request 1 additionally defined a concentration range for the surfactants. The thereby defined composition was still anticipated by the personal cleansing composition in document D17, which was considered suitable for cleansing keratin fibres and comprised the defined surfactants in the defined total concentration.
- (c) With respect to claim 1 as granted claim 1 of auxiliary request 2 additionally defined the presence of a conditioning agent selected from a list of cationic polymers. Claim 1 of auxiliary request 3 further included a disclaimer. The defined compositions still lacked novelty in view of documents D3 and D8, which described the cleansing compositions as comprising the cationic polymer polyquaternium-10.
- (d) Claim 1 of auxiliary request 4 additionally defined a concentration range for the surfactants and the presence of a conditioning agent selected from a list of cationic polymers. This claim did not comply with the provision of Article 123(2) EPC, because the application as filed only disclosed the defined concentration range in relation to the total of amino acid surfactants in the composition and not specifically in relation to the glutamate surfactant and sarcosinate surfactant as defined in claim 1.

The independent claims in auxiliary requests 5-7 comprised the same feature regarding the concentration range as claim 1 of auxiliary request

4 and thus did not comply with Article 123(2) EPC for the same reason.

- (e) Claim 1 of auxiliary request 8 defined the concentration range in relation to the total of amino acid surfactants. The claim did not comprise the specific combinations of two surfactants excluded in the application as filed and did not result from a new selection. Auxiliary request 8 therefore complied with the provision of Article 123(2) EPC.

The term "amino acid surfactant" was not objectionable under Article 84 EPC.

The novelty of the subject-matter of auxiliary request 8 was not contested.

Document D7, which described an aqueous cleansing composition suitable for protecting colour treated hair comprising polyquaternium-47 and polyquaternium-59, represented the closest prior art. The difference of the claimed subject-matter with the composition of document D7 concerned the total concentration of amino acid surfactants and the use of different conditioning agents. The data in document D18 showed that the use of the conditioning agents defined in the claims in place of the conditioning agents of the composition described in document D7 allowed for reduced loss of colour from artificially coloured hair. The problem to be solved with respect to document D7 concerned the provision of an improved aqueous cleansing composition that washes out artificial hair colour to a lesser extent. No prior art suggested the claimed solution to this problem. The

subject-matter of auxiliary request 8 therefore involved an inventive step.

III. In the statement setting out the grounds of appeal the appellant-patent proprietor relied on the patent as granted and auxiliary requests 1-8, which correspond to the requests on which the appealed decision was based.

Claim 1 of **auxiliary request 1** additionally defines the concentration range for the surfactants of claim 1 as granted by the feature:

"at a concentration of 5 to 15%, by weight, calculated to total composition".

Claim 1 of **auxiliary request 2** additionally defines with respect to claim 1 as granted the presence of a conditioning agent by the feature:

"wherein the composition comprises one or more conditioning agent, wherein the conditioning agent is cationic polymer selected from cationic cellulose and its derivatives, cationic guar gum and its derivatives, cationic Caesalpinia spinosa gum and its derivatives, polyquaternium 6, polyquaternium 67, polyquaternium 70 and polyquaternium-87."

Claim 1 of **auxiliary request 3** additionally defines with respect to claim 1 of auxiliary request 2 the feature:

"wherein following combination of two surfactants are excluded from the scope:

monosodium myristoyl glutamate and sodium cocoyl glycinate, N-lauroyl glutamate and sodium lauroyl



alaninate, sodium lauroyl alaninate and sodium lauroyl glutamate".

Claim 1 of **auxiliary request 4** combines the amendments of auxiliary requests 1 and 2 by definition of the concentration range for the surfactants as well as the definition of the presence of the conditioning agents.

Claim 1 of **auxiliary request 5** corresponds to claim 1 of auxiliary request 4 with the following reformulation of the feature concerning the concentration range:

"at a combined concentration of 5 to 15%, by weight, calculated to total composition". [underlining by the Board]

Claim 1 of **auxiliary request 6** corresponds to claim 1 of request 4 with the additional definition of the disclaimer of auxiliary request 3.

Claim 1 of **auxiliary request 7** corresponds to claim 1 of request 5 with the additional definition of the disclaimer of auxiliary request 3.

Claim 1 of **auxiliary request 8** corresponds to claim 1 of auxiliary request 4 with the following reformulation of the feature concerning the concentration range:

"whereby the total concentration of amino acid surfactant is from 5 to 15%, by weight, calculated to total composition".

With its reply to the appeal by the opponent the appellant-patent proprietor filed auxiliary request 9, in which claim 1 includes the features of claim 1 of

auxiliary request 8 and the disclaimer of auxiliary request 3.

IV. New items of evidence

The appellant-opponent submitted with its statement of grounds of appeal the following document:

D19: Experimental Data Report (31 October 2019)

The appellant-patent proprietor submitted with its reply to the opponent's appeal the following document:

D20: Comparative test report (2 April 2020)

V. In a communication pursuant to Article 15(1) RPBA issued on 9 December 2021 the Board expressed the preliminary opinion that the appeals by the patent proprietor and the opponent were to be dismissed.

VI. The appellant-opponent presented in its letter of 10 August 2022 further comments concerning auxiliary request 8, in particular regarding the requirements of clarity and inventive step.

VII. Oral proceedings were held on 13 September 2022.

VIII. The arguments of the appellant-patent proprietor and the appellant-opponent relevant to the present decision are discussed in detail in the reasons for the decision below.

IX. The appellant-patent proprietor requested that the decision under appeal be set aside and that the patent be maintained as granted. Subsidiarily, the appellant-patent proprietor requested that the patent be

maintained on the basis of one of auxiliary requests 1-7 filed with the grounds of appeal, auxiliary request 8 filed on 28 June 2019 and held allowable by the opposition division, or auxiliary request 9 filed with the reply to the opponent's appeal.

The appellant-patent proprietor further requested that documents D17 and D19 not be admitted into the appeal proceedings, and that document D20 be admitted in case document D19 was admitted. The appellant-patent proprietor also requested that objections concerning compliance with Articles 123(2) EPC and 84 EPC raised for the first time by the appellant-opponent in its statement of grounds of appeal be disregarded. The appellant-patent proprietor further requested that the appellant-opponent's submissions dated 10 August 2022, in so far as they related to new arguments, not be admitted.

- X. The appellant-opponent requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

The appellant-opponent further requested that document D17 be admitted into the appeal proceedings.

## Reasons for the Decision

1. Admittance documents D17, D19 and D20

1.1 The appellant-patent proprietor argued that the late-filed document D17 lacked *prima facie* relevance and should not have been admitted by the opposition division. However, the opposition division did not disregard document D17, which was filed within the time limit set under Rule 116 EPC. It relied in its decision on the relevance of document D17 to the issue of novelty. In accordance with Articles 12(1) and 12(2) RPBA 2020 the Board therefore considers document D17 to form part of the appeal proceedings.

Document D19 was filed with the appellant-opponent's statement of grounds of appeal. The appellant-opponent relied on document D19 to further support its argument that the results reported in document D18 could not support an inventive step. The appellant-patent proprietor argued that document D19 should have been filed at an earlier stage of the proceedings. However, the Board considers the filing of document D19 a legitimate response to the decision under appeal, in which an inventive step was recognized having regard to the results reported in document D18, which had only been filed one month in advance of the oral proceedings held before the opposition division.

Document 20 was filed by the appellant-patent proprietor with its reply to the opponent's appeal. Document D20 reports results of similar experiments as document D18 including an evaluation of statistical significance. The Board considers the filing of

document D20 a legitimate response to the appellant-opponent's filing of document D19.

Having regard to Article 12(4) RPBA 2007 the Board finds no grounds for disregarding documents D19 and D20, which thus form part of the appeal proceedings.

2. Main request

2.1 Novelty

In the decision under appeal the opposition division explains in detail its finding why the subject-matter as defined in the claims of the main request lacks novelty in view of documents D2-D5, D7-D9 and D17 (see decision pages 4-6 sections 15.2-15.9).

The appellant-patent proprietor denied in its submissions regarding the main request that documents D2-D5, D7-D9 and D17 disclose all the features of claim 1 of the patent as granted (see statement of grounds of appeal page 5 paragraph 1), but failed to identify during the appeal proceedings any distinguishing feature of claim 1 as granted with respect to these documents.

The Board therefore considers that claim 1 as granted lacks novelty in view of documents D2-D5, D7-D9 and D17 for the reasons presented in the decision under appeal.

3. Auxiliary request 1

3.1 Claim 1 of auxiliary request 1 additionally defines a concentration range for the surfactants of claim 1 as granted by the feature:

"at a concentration of 5 to 15%, by weight, calculated to total composition".

- 3.2 According to the decision under appeal (see pages 6-7 section 17) this amended claim still lacks novelty over document D17, because this document describes compositions with a total concentration of glutamate and sarcosinate surfactants of 5.75% (see page 17 Example 1 Formula 1; page 20 Example II Formulae F and G; page 21 Example III Formulae 7 and 8). As pointed out in the decision under appeal, document D17 describes its compositions to be suitable for personal washing, especially of the face (see D17 page 1 lines 9-10).

The appellant-patent proprietor denied the relevance of document D17 with the argument that this document does not describe a composition suitable for cleansing keratin fibers as defined in claim 1. However, the applicant-patent proprietor did not indicate why the exemplified compositions of document D17 cited in the decision under appeal, which include all the components as defined for the claimed composition, would not be suitable for cleansing keratin fibres. The Board therefore agrees with the decision under appeal that claim 1 of auxiliary request 1 lacks novelty in view of document D17.

4. Auxiliary requests 2 and 3

- 4.1 Claim 1 of auxiliary request 2 additionally defines with respect to claim 1 as granted the presence of a conditioning agent by the feature:

"wherein the composition comprises one or more conditioning agent, wherein the conditioning agent is cationic polymer selected from cationic cellulose and its derivatives, cationic guar gum and its derivatives, cationic Caesalpinia spinosa gum and its derivatives, polyquaternium 6, polyquaternium 67, polyquaternium 70 and polyquaternium-87."

- 4.2 According to the decision under appeal (see page 10, section 21) this amended claim still lacks novelty in view of document D3 and document D8, which disclose cleansing compositions comprising the cationic cellulose type polymer polyquaternium-10 (see D3 page 7 Table 6 Formulation Example 3; see D8 under "Zutaten").

The appellant-patent proprietor argued that the compositions of documents D3 and D8 comprise alkylsulfate or alkylethersulfate type surfactants, which are excluded according to claim 1.

However, whilst document D3 indicates in paragraph [0061] that the compositions may comprise alkylsulfates and alkylethersulfates, it presents in Formulation Example 3 a composition which is free of alkylsulfate or alkylethersulfate type surfactants and which is thus covered by the claim.

Moreover, the compound "PEG-2 Dimeadowfoamamido-ethylmonium methasulfat" mentioned as the ingredient for the composition of document D8, which according to the appellant-patent proprietor is excluded from claim 1, concerns a salt in which the anionic methylsulfonate does not correspond to an alkylsulfonate type surfactant. Accordingly, also the composition of document D8 is free of alkylsulfate or

alkylethersulfate type surfactants and therefore covered by the claim.

The Board therefore agrees with the decision under appeal that claim 1 of auxiliary request 2 lacks novelty in view of documents D3 and D8.

4.3 Claim 1 of auxiliary request 3 additionally defines the feature:

"wherein following combination of two surfactants are excluded from the scope:  
monosodium myristoyl glutamate and sodium cocoyl glycinate, N-lauroyl glutamate and sodium lauroyl alaninate, sodium lauroyl alaninate and sodium lauroyl glutamate".

The appellant patent-proprietor argued that auxiliary request 3 complies with the requirement of novelty for the same reason as auxiliary request 2.

As observed in the decision under appeal (see page 10, section 22) the disclaimer introduced in claim 1 of auxiliary request 3 does not exclude the polyquaternium-10 comprising compositions of documents D3 and D8. The Board therefore concludes that claim 1 of auxiliary request 3 lacks novelty in view of documents D3 and D8 for the same reason as claim 1 of auxiliary request 2.

5. Auxiliary requests 4

5.1 Claim 1 of auxiliary request 4 comprises the definition of the concentration range for the surfactants as well as the definition of the presence of the conditioning



agents. This claim thus includes the combination of the amendments of auxiliary requests 1 and 2.

5.2 The appellant-patent proprietor maintained that the definition of the concentrations in claim 1 of auxiliary request 4 complies with Article 123(2) EPC. According to the appellant-patent proprietor the disclosure in paragraph [0008] of the patent (corresponding to page 2 final paragraph of the application as filed), clearly concerns the required two surfactants.

5.3 The Board observes that the application as filed states in the passage relied upon by the appellant-patent proprietor that

- the composition of the invention comprises at least two anionic surfactants at a concentration of 2 to 20 wt% (first sentence)
- the concentration of amino acid surfactant is preferably from 2.5 to 15 wt%, most preferably 5 to 10 wt% (second sentence)
- the mentioned concentrations are total concentration ranges in case more than one amino acid surfactant is present (third sentence).

The concentration range of 5-15 wt% may be derived from the higher limit of the preferred range and the lower limit of the most preferred range mentioned in the second sentence. In accordance with the third sentence the disclosed range relates to the total amount of amino acid surfactants. In contrast, claim 1 of auxiliary request 4 defines the range of 5-15 wt% in relation to the defined glutamate and sarcosinate

surfactants. Notably, claim 1 does not exclude the presence of further amino acid surfactants. Claim 1 thus applies the range of 5-15 wt% in a more specific context than the context in which this range was originally disclosed. The Board therefore agrees with the decision under appeal that claim 1 of auxiliary request 4 does not comply with Article 123(2) EPC.

6. Auxiliary requests 5-7

As observed in the decision under appeal (see pages 12-13 section 25) the independent claims in auxiliary requests 5-7 also define the range of 5-15 wt% in relation to the defined glutamate and sarcosinate surfactants. The same reasons for non-compliance with Article 123(2) EPC as set out in section 5 above therefore apply with respect to auxiliary requests 5-7.

7. Auxiliary request 8

7.1 Claim 1 of auxiliary request 8 corresponds to claim 1 of auxiliary request 4 in which the feature concerning the concentration range of 5-15 wt% is reformulated to relate to the total concentration of amino acid surfactant.

7.2 Compliance with Rule 80 EPC

Claim 1 defines conditioning agents as mentioned in claim 6 as granted with deletion of erroneous repetitions of terms ("cationic guar gum and its ~~derivatives~~ derivatives, cationic Caesalpinia spinosa gum and its ~~derivat~~over derivatives").

The appellant-opponent objected that contrary to the principle set out in G 1/10 the amendments according to

auxiliary request 8 thereby include a correction of the wording of the patent as granted which is not occasioned by a ground of opposition as required under Rule 80 EPC.

The Board observes that by introducing the definition of the concentration range for the surfactants and the presence of the conditioning agents the amendments in accordance with auxiliary request 8 are clearly aimed at delimiting the claimed subject-matter from the prior art. As explained in T 657/11 (see reasons 3.2-3.4) amendments occasioned by a ground of opposition may be accompanied by additional corrections under Rule 139 EPC. The cancellation of the repetition of the term "derivatives" in claim 1 is indisputably an obvious correction within the meaning of Rule 139 EPC. The Board therefore agrees with the decision under appeal that auxiliary request 8 complies with Rule 80 EPC.

### 7.3 Article 123(2) EPC

In its written submissions, the appellant-opponent maintained that claim 1 of auxiliary request 8 does not comply with Article 123(2) EPC because

- (a) the application as filed requires the combination of at least two anionic surfactants, whereas the glutamate and a sarcosinate surfactants of claim 1 are not necessarily anionic surfactants
- (b) claim 1 does not disclaim the combinations which are excluded from the scope of the invention according to the application as filed

(c) the concentration range in claim 1 cannot be unambiguously derived from the inconsistent original disclosure of surfactant concentrations.

At the oral proceedings the appellant-opponent relied on its written submissions. Accordingly, the Board confirms the opinion expressed in the communication pursuant to Article 15 RPBA represented in the following paragraphs.

The original disclosure (see page 3 paragraph 1) presents a general formula for preferred embodiments of the originally required at least two anionic surfactants. This general formula comprises the glutamate and sarcosinate surfactants defined in claim 1, which were originally described in the context of a most preferred embodiment (see page 3 paragraph 3) and thus represent preferred anionic surfactants within the meaning of the application as originally filed. The Board therefore concludes that claim 1 need not further define the anionic nature of the surfactants to comply with Article 123(2) EPC. In view of the Board's finding regarding the appellant-opponent's objection under (a), the question of admittance of this objection raised by the appellant-proprietor need not be addressed.

The application as filed (see page 2 first paragraph see also claim 1) discloses the invention as relating to an aqueous cleansing composition comprising at least two anionic surfactants subject to the proviso: "wherein following combination of two surfactants are excluded from the scope: monosodium myristoyl glutamate and sodium cocoyl glycinate, N-lauroyl glutamate and sodium lauroyl alaninate, sodium lauroyl alaninate and sodium lauroyl glutamate". This proviso explicitly relates to specifically defined combinations of two

surfactants, which do not include combinations with a sarcosinate as defined in claim 1. In line with the decision under appeal (compare page 9 section 20) the Board therefore considers that the definition of the composition in claim 1 of auxiliary request 8 does not comprise the specific combinations of surfactants excluded by the proviso in the application as filed. Accordingly, the Board concludes in line with the decision under appeal that the omission of this proviso in claim 1 does not introduce subject-matter extending beyond the content of the application as originally.

As explained in section 5.3 above, the Board further considers that the application as filed (see page 2 final paragraph) unambiguously discloses a concentration range of 5-15 wt% for the total amount of amino acid surfactants.

The Board therefore agrees with the decision under appeal (see pages 13-14 section 27.1) that auxiliary request 8 complies with Article 123(2) EPC.

#### 7.4 Clarity

##### 7.4.1 The term "amino acid surfactant"

The appellant-opponent maintained in its statement of grounds of appeal (see pages 13-14, section 5) that the use of the term "amino acid surfactant", in particular in combination with the definition of the concentration range of 5-15 wt%, introduces ambiguity in the claim contrary to Article 84 EPC. In its letter of 10 August 2022 (see pages 2-4, section 1) the appellant-opponent further pointed out that in accordance with the patent (see claim 2 of auxiliary request 8) the defined compositions may contain

amphoteric surfactants, including betaine derivatives (see the patent, paragraphs [0014]-[0015]) as illustrated by examples E, 2, 5, 10 and 11. According to the appellant-opponent the skilled person would not know whether such betaine derivatives, which would indisputably fall under the term "amino acid surfactant", are actually to be included in the range of 5-15 wt%.

The Board does not consider that the letter of 10 August 2022 introduces an amendment to the appellant-opponent's appeal case regarding the objection under Article 84 EPC within the meaning of Article 13(2) RPBA 2020, because the relevant section of the letter merely illustrates on the basis of information in the patent the objection as already presented in the appellant-opponent's statement of grounds of appeal.

However, as pointed out in the decision under appeal (see pages 14-15, section 27.3) claim 1 of auxiliary request 8 clearly allows for the composition to comprise further components, including amino acid surfactants, wherein the term "amino acid surfactants" is not limited to particular amino-carboxylic acid surfactants. In fact, according to the appellant-opponent's own statement in the letter of 10 August 2022 the amphoteric surfactants represented by the betaine derivatives mentioned in the patent are without question to be considered as covered by the broad term "amino acid surfactants". As claim 1 unambiguously restricts the total concentration of amino acid surfactants in the defined compositions as from 5-15%, by weight, calculated to total composition, the Board concludes that the use of the term "amino

acid surfactant" claim 1 of auxiliary request 8 is not objectionable under Article 84 EPC.

7.4.2 The appellant-opponent further argued that the terms "guar gum and its derivatives" and "Caesalpina spinosa gum and its derivatives" lack clarity. As pointed out by the appellant-patent proprietor these terms are used in claim 1 of auxiliary request 8 in line with the use of these terms in dependent claim 6 as granted. In accordance with the principles set out on G 3/14 the Board therefore concludes that the use of these these terms in claim 1 of auxiliary request 8 is not objectionable under Article 84 EPC. In view of this conclusion the question of admittance of the objection raised by the appellant-proprietor need not be addressed.

7.5 Inventive step

7.5.1 Closest prior art

The appellant-opponent presented arguments based on document D7 as well as document D8 as closest prior art.

The cleansing composition of the patent is aimed at preserving artificial hair colour (see paragraph [0003]). Document D7 also describes an aqueous cleansing composition suitable for protecting colour treated hair (see under "Produktbeschreibung"). In contrast, document D8 relates to a composition for changing hair colour (see under "Produktbeschreibung"). The Board therefore agrees with the decision under appeal (see pages 15-16 section 29.2) that document D7 represents the closest prior art.

The composition of document D7 comprises glutamate and sarcosinate surfactants as well as polyquaternium-47 and polyquaternium-59 (see under "Zutaten"). The differences between the composition of claim 1 and the composition of document D7 concern the definition of the specific concentration range for the total amount of amino acid surfactants and the definition of the specific cationic conditioning agents.

#### 7.5.2 Problem to be solved

According to the appellant-opponent the problem to be solved could only be seen in the provision of an alternative cleansing agent. The appellant-opponent denied the relevance of the results in documents D18 and D20 for the formulation of the problem to be solved. In its letter of 10 August 2022 the appellant-opponent argued specifically that the patent does not address any particular effect to result from the choice of the cationic conditioning agent. The appellant-opponent further argued that the experimental results reported in document D19 demonstrate that in comparison to the compositions of document D7 the compositions as claimed do not allow for a reduced loss of colour by washing of dyed hair in general.

In this context the Board considers that the appellant-opponent's submission in the letter of 10 August 2022 represents a development of its argument concerning the formulation of the problem to be solved rather than an amendment to its appeal case within the meaning of Article 13(2) EPC.

The appellant-patent proprietor maintained that the compositions of claim 1 including the defined particular cationic conditioning agents allow for less



loss of artificial colour from washing than when a composition with the cationic conditioners of document D7 is used. According to the appellant-patent proprietor this advantage is demonstrated by the provided evidence, in particular the results of the experiments reported in documents D18 and D20 supplementing the results of the experiments with a similar set up as presented in example 1 of the patent.

The Board observes that the experimental results described in document D20 are consistent with the results reported in document D18. The reported results indicate significantly less colour loss after repeated washing with surfactant compositions containing conditioners as defined in claim 1, namely polyquaternium 6, polyquaternium 67, polyquaternium 70 and polyquaternium-87 (see D18/D20, compositions II-V), than after such washing with a comparable composition containing the conditioners of document D7 (see D18/D20, composition I).

In the experiments described in documents D18 and D20 the cleansing compositions are applied on hair stresses coloured with a combination of an oxidative dye and a direct dye. The experiments using such combination of dyes reported in documents D18 and D20 correspond to the experiments already described in the patent (see Example 1, in particular paragraph [0084]), in which various cleansing compositions comprising the cellulose derivative Polyquaternium 10 were applied on hair stresses coloured with a combination of an oxidative dye and a direct dye. As pointed out by the appellant-patent proprietor during the oral proceedings, the experiments reported in example 1 of the patent already indicated favourable results regarding the loss of colour for cleansing compositions comprising a

combination of glutamate and sarcosinate surfactants free of sulphate surfactant (see the patent, paragraph [0086]). Accordingly, documents D18 and D20 confirm an advantageous property of the claimed compositions already addressed in the patent by providing complementary evidence in the form of experimental results which are obtained upon carrying out the claimed invention in accordance with the teaching of the patent compared to the prior art. The results in documents D18 and D20 therefore concern the invention as already described in the patent, in view of which the Board has no reservations against taking the results from documents D18 and D20 into account when formulating the problem to be solved in view of document D7.

In contrast to the experiments reported in documents D18 and D20, the experiments described in document D19 involve the use of an oxidative hair dye only (see D19 page 2 under "Hair Coloring"). The overall low loss of colour reported in document D19 ranging from  $\Delta E$  values of 2.03 to 3.53 (see page 3 under "Results") relative to the  $\Delta E$  levels of 9.57 to 14.43 reported in documents D18 and D20 does not cast doubt on the results reported in documents D18 and D20, but rather indicates the inherent resistance to washing of the single oxidative dye used in document D19.

The Board therefore agrees with the decision under appeal (see page 18 paragraph 3) that the problem to be solved in view of document D7 may be formulated as the provision of an improved cleansing composition.

During the oral proceedings the parties invited the Board to consider a stay of the proceedings until the issue of decision G 2/21 from the referral in T 116/18.

This referral relates to the question whether post-published evidence must be disregarded if the proof of a technical effect relied upon for an inventive step rests exclusively on post-published evidence. In view of the complementary character of experiments reported in the post-published documents D18 and D20 with respect to teaching of the patent it is not evident that the outcome of G 2/21 should affect the Board's considerations in the present case. The Board does therefore not consider a stay of the proceedings until the issue of decision G 2/21 appropriate.

### 7.5.3 Assessment of the solution

The appellant-opponent relied on documents D3 and D8 to argue that the cationic conditioners defined in claim 1 are obvious as alternatives to the conditioners described in document D7. Moreover, according to the appellant-opponent identifying the concentration range for the amino acid surfactants requires no more than routine experimentation, in particular when taking account of the concentration value of 19% for the surfactants exemplified in document D3 (see page 7 Table 6).

The appellant-opponent's arguments do not address the issue why the skilled person would on the basis of the available prior art as a matter of obviousness arrive at the composition of claim 1 of auxiliary request 8 to solve the problem of providing improved cleansing compositions with respect to the compositions of document D7.

The Board therefore agrees with the decision under appeal (see page 18 paragraphs 4-5) that the subject-

matter of claim 1 of auxiliary request 8 involves an inventive step.

**Order**

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

The appeals are dismissed.

The Registrar:

The Chairman:



B. Atienza Vivancos

A. Uselli

Decision electronically authenticated