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**Datasheet for the decision  
of 21 January 2014**

**Case Number:** T 0317/10 - 3.3.07

**Application Number:** 03027984.8

**Publication Number:** 1541116

**IPC:** A61K8/04, A61K8/81, A61K8/98,  
A61Q5/06

**Language of the proceedings:** EN

**Title of invention:**  
Hair styling composition

**Patent Proprietor:**  
Kao Germany GmbH

**Opponent:**  
Givaudan Nederland Services B.V.

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 114(2), 56  
RPBA Art. 13(1), 13(3)

**Keyword:**  
Late-filed evidence - admitted (yes)  
Inventive step - obvious combination

**Decisions cited:**

**Catchword:**

-



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Case Number: T 0317/10 - 3.3.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.07**  
**of 21 January 2014**

**Appellant:**  
(Patent Proprietor)

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**Decision under appeal:**

**Decision of the Opposition Division of the  
European Patent Office posted on 16 December  
2009 revoking European patent No. 1541116  
pursuant to Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman:** J. Riolo  
**Members:** R. Hauss  
P. Schmitz

## Summary of Facts and Submissions

I. European patent No. 1 541 116 was granted on the basis of ten claims.

Independent claim 1 reads as follows:

"1. R Aqueous and/or aqueous-alcoholic hair styling composition characterised in that it comprises at least one hair styling polymer and spray dried yoghurt powder."

II. A notice of opposition was filed in which revocation of the patent in its entirety was requested for lack of novelty and lack of inventive step under Article 100(a) EPC.

III. The documents cited during the opposition and appeal proceedings included the following:

**D4c:** Quest, Yogurtene product leaflet, June 2000

**D5:** EP 0 756 859 A1

**D8:** Proceedings of International Cosmetological Conference, Cosmetological Society of the Czech Republic, Slovak Cosmetological Union, pages 8 to 12 and three unnumbered pages, November 2003

**D8a:** English translation of D8

**D9:** Trial report of March 2005, version with corrected spelling filed by the appellant on 25 February 2010

**D10:** Test report filed by the appellant on 22 October 2009

**D11:** Test report filed by the appellant on 10 January 2014

IV. The appeal lies from the decision of the opposition division, pronounced in oral proceedings on 25 November 2009 and posted on 16 December 2009, revoking the patent.

In the impugned decision the opposition division considered the patent proprietor's main request, directed to the rejection of the opposition, and three sets of claims filed by the patent proprietor as first to third auxiliary requests on 25 November 2009.

Independent claim 1 of the first auxiliary request reads as follows:

"1. Aqueous and/or aqueous-alcoholic hair styling composition characterised in that it comprises at least one hair styling polymer, spray dried yoghurt powder and a second polymer selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic ones."

Independent claim 1 of the second auxiliary request reads as follows:

"1. Aqueous and/or aqueous-alcoholic hair styling composition characterised in that it comprises at least one hair styling polymer selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic ones, spray dried yoghurt powder, at a concentration of 0.01-10% by weight, calculated to the total composition, and a second polymer selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic ones."

Independent claim 1 of the third auxiliary request reads as follows:

"1. Aqueous and/or aqueous-alcoholic hair styling composition characterised in that it comprises at least one hair styling polymer selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic ones, spray dried yoghurt powder, at a concentration of 0.01-3% by weight, calculated to the total composition, and a second polymer selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic ones."

The opposition division found with regard to the main request that the subject-matter of claim 1 as granted did not involve an inventive step.

Document D5, which disclosed compositions containing hair styling polymers in combination with a specific polyorganosiloxane conditioning polymer (an aminoalkyl dimethylpolysiloxane/polyethyloxazoline copolymer), was regarded as the closest prior art. The composition of claim 1 differed from the compositions of D5 by the presence of spray-dried yoghurt powder. It had not been rendered credible that surprisingly improved properties of the compositions were linked to that technical feature across the entire claimed scope, the data provided in test reports D9 and D10 being insufficient in that respect. Thus the objective technical problem was to be defined as the provision of alternative hair styling compositions comprising hair styling polymers and conditioning compounds which had good hair caring properties, namely concerning conditioning and hair setting. According to the teaching of documents D4c and D8, spray-dried yoghurt powder improved the conditioning and setting properties of hair care compositions. Hence the skilled person starting from the disclosure of D5 and seeking to formulate alternative hair styling compositions found an incentive in the prior art to use spray-dried yoghurt powder, known to have advantageous properties as a conditioner and hair setting agent, in the compositions of D5. The claimed subject-matter was therefore obvious with regard to the prior art.

The same objection and reasoning applied to all three auxiliary requests, since none of the additional limitations present in claim 1 of each auxiliary request could change the situation with regard to the assessment of inventive step.

- V. The appellant (patent proprietor) lodged an appeal against that decision, requesting that the impugned decision be set aside. The appellant's main request and three auxiliary requests were the same as in the first-instance proceedings.
- VI. The respondent (opponent) did not file any submissions during the written phase of the appeal proceedings.
- VII. In a communication issued in preparation for oral proceedings and advising the parties of the board's preliminary opinion, the board observed that document D5 was not unsuitable as a starting-point for the assessment of inventive step. No evidence had been presented that an unexpected technical effect was obtained by the claimed compositions across the entire claimed scope. Test report D9 did not relate to a direct comparison with the disclosure of document D5. The tests described in test report D10 did not appear to represent a correct comparison with the disclosure of document D5.
- VIII. With letter dated 10 January 2014 the appellant filed a further test report (D11).
- IX. Oral proceedings before the board took place on 21 January 2014.
- X. The appellant argued as follows:
- Admission of test report D11*
- Test report D11 had been filed in response to the board's communication issued in preparation for oral proceedings. It should be admitted into the proceedings in particular because of its high relevance to the issue of inventive step.

*Inventive step*

The comparative tests described in document D11 concerned a comparison of the claimed compositions with example formulation E3 disclosed in document D5. The data presented in D11 showed that the hair conditioning and hair setting properties of the samples were boosted to a surprising and unexpectedly high extent by the addition of spray-dried yoghurt powder. An unexpected synergistic effect was obtained. Starting from the teaching of document D5, the technical problem was to be defined as providing hair styling compositions presenting significantly improved conditioning and hair setting properties.

The claimed composition was not suggested in the prior art as a solution to that problem. The teaching of documents D4c and D8 was not relevant to the claimed invention, since said documents related to shampoo formulations only, typically to be rinsed from the hair. The skilled person would not necessarily expect the same level and type of hair care effects to be obtained in the case of leave-on application required for hair styling compositions. Furthermore, the prior art did not address all the properties which had been examined in the tests of D11 and did not suggest that several improvements could be obtained at the same time, as was clearly shown in D11.

Nor could the concentration ranges of spray-dried yoghurt powder defined in claim 1 of the second and third auxiliary requests have been derived from the teaching of the cited prior art.



XI. The respondent argued as follows:

*Admission of test report D11*

The appellant's test report D11 should not be admitted into the proceedings. That report had been filed only days before the oral proceedings. The objections which it purported to address (viz. that test report D10 did not provide a correct comparison with the disclosure of the closest prior art D5 and that no unexpected technical effect had been shown over the claimed scope) were essential steps in the opposition division's chain of argumentation as presented in the decision under appeal. Hence the new test report addressed a known issue and should already have been submitted with the statement setting out the grounds of appeal. The communication issued by the board in preparation for oral proceedings did not contain any new elements which could justify the submission of further experimental evidence at such a late stage of the proceedings.

*Inventive step*

The respondent agreed with the conclusions presented by the opposition division in the decision under appeal.

The new test data provided in document D11 were not suitable to demonstrate an unexpected technical effect of the claimed compositions. Neither in D11 nor in the accompanying letter had the appellant set out the methodology which was used in evaluating the test samples. As far as the test reports already on file were concerned, different methodologies had been used: According to test report D9, hairdressers indicated a preference between two samples, whereas according to test report D10, the comparison involved hairdressers giving a rating between 1 and 10 to the samples. In test report D11, it was mentioned only that the hair properties were evaluated in dry stage by hairdressers.

Apart from that, D11 did not describe the methodology which was used for said evaluation and did not provide any information on the statistical reliability of the reported results. The data presented in D11 was quite consistent with a protocol according to which a panel of hairdressers simply indicated their preferences between samples for each tested attribute, without giving a more detailed rating. Since a preference might be only a slight preference, such a method, moreover based on subjective impressions, was not suitable for determining the magnitude of an effect. Thus it had not been shown that any perceived improvements were of an unexpected magnitude. Nor had evidence of a synergistic effect been presented.

It was known from the prior art, specifically from documents D4c and D8, that advantageous hair care effects could be obtained by adding spray-dried yoghurt powder to hair care products. Even if it had been shown that any of those known effects was more pronounced in the claimed compositions than expected, which the respondent contested, that alone could not support a case in favour of inventive step.

The additional technical features which had been introduced into the claims of the auxiliary requests did not provide any independent technical effect and thus could not contribute anything to inventive step. The choice of rather broad concentration ranges in the second and third auxiliary requests could only be regarded as arbitrary.

- XII. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted, or alternatively that the patent be maintained on the basis of one of the first to third auxiliary requests filed on 25 November 2009.

XIII. The respondent requested that the appeal be dismissed.

### **Reasons for the Decision**

1. The appeal is admissible.
2. Admission of late-filed evidence
  - 2.1 Test report D11 was filed by the appellant at a late stage in the appeal proceedings, viz. eleven days before the scheduled oral proceedings.
  - 2.2 According to Article 13(1) of the Rules of Procedure of the Boards of Appeal (RPBA), any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion, which is to be exercised in view of *inter alia* the complexity of the new subject-matter, the current state of the proceedings and the need for procedural economy.
  - 2.3 According to Article 13(3) RPBA, amendments sought to be made after oral proceedings have been arranged are not to be admitted if they raise issues which the Board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings.
  - 2.4 Test report D11 attempts to provide comparative data with regard to the disclosure of document D5, to support the appellant's case in favour of inventive step. While the new test report was submitted at a very late stage of the appeal proceedings, it appeared that the respondent had no difficulty in analysing the data in D11 and in presenting arguments against its

validity. The respondent did not request more time in order to perform counter-experiments.

2.5 Since the late submission of test report D11 did not raise issues which the board or the respondent could not reasonably be expected to deal with without adjournment of the oral proceedings, the board finds it appropriate to exercise its discretion under Article 114(2) EPC and Article 13(1) and 13(3) RPBA by admitting the late-filed test report D11 into the proceedings.

3. Inventive step - main request

3.1 Problem-and-solution approach

The problem-and-solution approach employed as a rule by the boards for assessing inventive step involves

- (a) identifying the closest prior art,
- (b) assessing the technical effects achieved by the claimed subject-matter when compared with the closest prior art,
- (c) defining the objective technical problem on the basis of the technical effects actually achieved,
- (d) examining whether or not the skilled person, having regard to the state of the art within the meaning of Article 54(2) EPC, would have suggested the claimed combination of technical features in order to solve the objective technical problem.

*Patent in suit*

3.2 The patent in suit relates to aqueous hair styling compositions containing a hair styling polymer. As defined in independent claim 1, the compositions also

contain spray-dried yoghurt powder and, optionally, alcohol.

- 3.3 Due to the presence of a hair styling polymer, the compositions provide hair setting. It is accordingly mentioned in the patent specification (see paragraph [0009]) that upon application of the compositions of the invention, hair setting can be improved. It is furthermore mentioned that properties of hair such as manageability, shine, volume, body and elasticity are improved, too.
- 3.4 The patent in suit contains formulation examples but does not provide any experimental data in support of the alleged improvements.

*Closest state of the art*

- 3.5 In the opposition proceedings, document D5, which is cited on page 2 of the patent in suit and on page 1 of the corresponding text of the application as filed, was regarded as the closest prior art.

D5 relates to hair treatment compositions (in particular hair sprays) containing, in an aqueous, aqueous/alcoholic or alcoholic medium, a specific aminoalkyl dimethylpolysiloxane/polyethyloxazoline copolymer and at least two other polymers.

The example formulations described in D5, in the form of hairsprays or mousses, each contain known hair styling polymers and would be recognised by the skilled person as hair styling compositions. The polymers listed on pages 4 to 5 of D5 are typical hair styling polymers such as also disclosed in the patent in suit. The results of the comparative tests reported in D5 (examples) suggest that the aminoalkyl dimethyl-polysiloxane/polyethyloxazoline copolymer may serve to

provide hair conditioning by improving both combability and touch of the treated hair, without diminishing volume and elasticity of the hair style.

Since D5 relates to aqueous and aqueous/alcoholic hair-styling compositions which also provide conditioning properties, that document concerns the same product type and hair care effects as the patent in suit and may be regarded as a suitable starting point for the assessment of inventive step, no other document having been suggested by the parties.

*Other relevant prior-art documents*

- 3.6 Document D4c discloses the commercially available product "Yogurtene", which is spray-dried yoghurt powder, in particular for use in hair care applications. It is mentioned that the ingredient improves hair combing, hair gloss, hair sensory attributes and hair volumising and that it retains moisture, thus imparting softness to hair. As reported in D4c, hair washed with a shampoo formulation containing 1% Yogurtene exhibited significantly more favourable properties compared to hair washed with a corresponding formulation not containing Yogurtene, with respect to wet detangling, a more conditioned wet hair feel, a better gloss and a softer dry hair feel. In a style retention study, hair swatches were soaked in 1% Yogurtene solution, rinsed, curled onto perm rods and blow dried. The curl retention obtained with Yogurtene was clearly better than that obtained with wheat peptide or with the base formulation (water). A favourable effect on hair volume was also observed. D4c moreover discloses a conditioner formulation for dry hair containing 1% Yogurtene.

- 3.7 Document D8/D8a discloses the use of spray-dried yoghurt powder in hair care applications, mentioning that feel, appearance and volume of the hair are improved. Various hair care studies were carried out showing that hair treated with yoghurt powder felt softer and exhibited improved maintenance of the hair style without static charge. Shampoo formulations containing yoghurt powder provided improved wet-combing, a more conditioned wet feel and increased softness and gloss of dry hair.

*Technical problem and solution*

- 3.8 The composition according to claim 1 as granted differs from the example formulations described in document D5, for instance example formulations E and F (each containing water, ethanol and styling polymers), by the presence of spray-dried yoghurt powder.
- 3.9 In the context of the problem-and-solution approach the technical problem must be defined on the basis of the technical effect achieved by including spray-dried yoghurt powder into the compositions of D5.
- 3.10 The appellant has referred to test report D11 as evidence of the technical effects contributed by that component.
- 3.10.1 The tests described in document D11 relate to a comparison of example formulation E3 described in document D5 with corresponding formulations containing yoghurt powder.

Example formulation E3 of document D5 is a mousse formulation and has the following composition (it is to be assumed that the concentrations are given on a percent by weight basis, as elsewhere in D5):

Example formulation E3 of D5	
Graft copolymer <sup>1)</sup>	0.1
Vinylpyrrolidone/vinylacetate copolymer (Luviskol VA 64®)	1.0
Polyquaternium-16	3.0
Laureth-23	0.2
PEG-40 hydrogenated castor oil	0.1
Perfume	0.1
Propane/Butane	10.0
Ethanol	10.0
Water	@ 100

<sup>1)</sup> aminopropyl dimethylpolysiloxane / polyethyloxazoline graft copolymer ("Organopolysiloxane A-1" according to example 1, page 12 of EP-A 640 643)

According to test report D11, a composition falling under claim 1 of the patent in suit was produced by adding 0.5% by weight yoghurt powder (Inventive Composition 1). Additionally, another composition (Inventive Composition 2) was produced by adding 0.5% by weight yoghurt powder and by reducing the concentration of Polyquaternium-16 by 0.5% by weight in order to keep the active matter content of the inventive composition the same as in the comparative composition E3.

Two comparative tests were carried out in which hair swatches were washed, towel-dried, treated with the respective sample mousse compositions and dried with a hairdryer, using a brush. The properties of the dry hair were evaluated by hairdressers.

The following results were observed:



<b>Results of the first comparative test</b>		
	Comparative composition E3	Inventive Composition 1
Easier to go through with brush	2	8
Improved setting	3	7
Better elasticity	2	8
Natural feeling upon touching	2	8
Improved shine	3	7
Hairdresser's preference	1	9

<b>Results of the second comparative test</b>		
	Comparative composition E3	Inventive Composition 2
Easier to go through with brush	3	7
Improved setting	2	8
Better elasticity	3	7
Natural feeling upon touching	3	7
Improved shine	2	8
Hairdresser's preference	2	8

3.10.2 The appellant concluded from these results that the inventive compositions showed superior properties with regard to hair setting and other properties of hair and that furthermore, the observed properties were obtained at an unexpectedly high level or order of magnitude. The appellant also mentioned a synergistic effect.

3.11 The board does not reach the same conclusion, for the following reasons:

- 3.11.1 Apart from the mere statement that the properties of the treated and dried hair swatches were examined by hairdressers, document D11 does not mention any further details regarding the evaluation method employed. As pointed out by the respondent, the data given in D11 is compatible with a protocol according to which each hairdresser simply indicated, with regard to each attribute tested, which sample they preferred. The fact that the figures in each line of the tables add up to ten would suggest in that context that a panel of ten hairdressers was involved.
- 3.11.2 The appellant has neither contested the respondent's assessment of the evaluation method nor provided a different explanation. There is furthermore no indication to be found in D11 that a method was used which might have involved a rating system allowing for an assessment of the magnitude of any effect observed.
- 3.11.3 Nor has any evidence of a synergistic effect been presented; i.e. it has not been shown that spray-dried yoghurt powder interacts with another component of the claimed compositions to provide a technical effect which amounts surprisingly to more than the combined known and expected effects of the two components.
- 3.11.4 Under these circumstances, i.e. in the absence of any corroborating evidence, it cannot be confirmed that hair care benefits of an unexpected magnitude and/or synergistic effects were obtained.
- 3.12 If a mere preference test was carried out, the test results reported in D11 still suggest that the inventive compositions containing yoghurt powder presented - to some unspecified extent - more favourable properties than example formulation E3

of D5, with regard to hair conditioning and hair setting.

3.13 Starting from the technical teaching of document D5, the technical problem may thus be defined as the provision of an aqueous or aqueous/alcoholic hair styling composition presenting improved hair care properties in respect of conditioning and hair setting.

3.14 In view of the test results reported in document D11 and in view of the disclosure of documents D4c and D8, the board accepts that that problem is solved by the composition defined in claim 1 of the patent in suit.

3.14.1 D11 does not mention how the tested attributes were assessed. While this seems reasonably straightforward with regard to easy combing, touch and gloss (shine), it is less so with regard to setting and elasticity.

3.14.2 In view of the results presented in test report D11 and additionally in documents D4c and D8 (see points 3.6 and 3.7 *supra*), it appears sufficiently credible that easy combing, touch, gloss and setting of the hair may be improved due to the use of spray-dried yoghurt powder in the claimed hair styling compositions.

3.14.3 As far as the attribute "elasticity" is concerned, it is not known how that property was defined and assessed in the context of test report D11. The evidence with respect to elasticity is thus regarded as insufficient.

*Obviousness of the solution*

3.15 At the filing date of the patent in suit, it was known from documents D4c and from D8 that spray-dried yoghurt powder was suitable for use in hair care products and that that ingredient could be expected to provide various hair care benefits, in particular improved

combability and hair setting, soft feel and enhanced gloss (see points 3.6 and 3.7 *supra*).

- 3.16 The solution to the technical problem (see point 3.13 *supra*), which involves adding spray-dried yoghurt powder to the hair styling composition, was therefore obvious with regard to the prior art.
- 3.17 Even had it been shown that the observed hair care benefits were of a surprising magnitude, which is not the case (see points 3.10.2 to 3.11.4 *supra*), the magnitude would not imply inventive step, since it would have to be regarded as an accidental bonus resulting from an obvious measure (see the Case Law of the Boards of Appeal of the European Patent Office, 7th edition 2013, I.D.10.8).

*Counter-arguments by the appellant*

- 3.18 The appellant's argument that the results previously reported in D4c and D8 should be disregarded because the compositions of D4c and D8 were intended to be rinsed from the hair is not convincing, since the effect provided by a rinse-off-type composition, such as a shampoo, must be due to part of the composition remaining on the hair (see also the statement in document D8 (D8a: page 8) that the fixation of the hairstyle and the reduction of static charge are caused by the film which is formed on a hair by high-molecular-weight proteins).

There is thus no reason why a skilled person seeking a conditioning ingredient for use in hairstyling compositions should not consult a prior-art document describing shampoo and conditioner compositions with conditioning ingredients, since there is a reasonable expectation that said conditioning ingredients may also be suitable for hair styling products.

In document D8 (see D8a: page 11), yoghurt powder is moreover explicitly recommended for use in hair styling products.

It is furthermore pointed out that claim 1 does not actually contain any limitation which requires leave-on application of the claimed composition.

3.19 Furthermore, the appellant argued that the prior art D4c and D8 did not address all the properties which had been examined in the tests of D11 and did not suggest that several improvements could be obtained at the same time.

In fact, prior-art documents D4c and D8 do report improvements in combability, touch, gloss and hair setting (see points 3.6 and 3.7 *supra*). Since those benefits are attributed to the presence of the spray-dried yoghurt powder, it is also obvious that they would all be expected to occur together whenever a hair care composition contains spray-dried yoghurt powder.

Since it is not known how the parameter "elasticity" was defined and assessed in the context of test report D11 (see point 3.14.3 *supra*), it cannot be acknowledged that any distinct "elasticity" effect was observed which is different in its character from effects already reported in D4c, e.g. with regard to volume and curl retention (see D4c: Haircare Study 2 and Haircare Study 3). Moreover, in view of the known benefits providing an incentive for the skilled person to use spray-dried yoghurt powder as an obvious measure to obtain improvements in conditioning and hair setting, any such additional effect would at most be a bonus effect which could not substantiate inventive step.

3.20 As a consequence, the subject-matter of claim 1 of the main request does not involve an inventive step within the meaning of Article 56 EPC.

4. Inventive step - first auxiliary request

4.1 The composition defined in claim 1 of the first auxiliary request differs from the composition of claim 1 of the main request in the mandatory presence of a second polymer selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic polymers (i.e. any conceivable type of polymer).

4.2 The presence of a second polymer is not, however, a distinguishing technical feature over the compositions of document D5, which by definition contain three mandatory polymers (see D5: claim 1 and examples). In particular, the composition of example E3 described in document D5, and used as the comparative sample according to test report D11, contains two hair styling polymers (Polyquaternium-16 and vinylpyrrolidone/vinylacetate copolymer) and an aminopropyl dimethylpolysiloxane/polyethyloxazoline copolymer.

4.3 Since the added feature is not a distinguishing feature over the disclosure of document D5, its introduction cannot affect the definition of the technical problem and cannot make any contribution to establishing an inventive step. The assessment with regard to inventive step thus remains the same as for claim 1 of the main request.

4.4 As a consequence, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step within the meaning of Article 56 EPC.

5. Inventive step - second auxiliary request

5.1 Claim 1 of the second auxiliary request corresponds to claim 1 of the first auxiliary request in that it requires the presence of a second polymer selected from

- non-ionic, anionic, cationic and/or amphoteric or zwitterionic polymers. Additionally, claim 1 of the second auxiliary request specifies that the hair styling polymer is to be selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic polymers, and that the spray-dried yoghurt powder is employed at a concentration of 0.01 to 10% by weight.
- 5.2 As already discussed in the context of the first auxiliary request, the feature requiring the presence of a second polymer is not a distinguishing feature over the disclosure of the closest prior art D5.
- 5.3 The requirement in claim 1 of the second auxiliary request that the styling polymer be selected from non-ionic, anionic, cationic and/or amphoteric or zwitterionic polymers is not limiting, since any one polymer belongs to one of those groups.
- 5.4 The choice of a concentration range for spray-dried yoghurt powder of 0.01 to 10% by weight covers the typical levels (usually, rather lower than 10%) at which hair conditioning agents would be employed in a hair care composition. It is also a matter of routine experimentation for the skilled person to determine what is an adequate concentration level. For the rest, said choice is arbitrary, since no evidence has been presented which could link the selected concentration range to an unexpected technical effect.
- 5.5 Hence, none of the features which have been introduced into claim 1 of the second auxiliary request provides an inventive contribution to the subject-matter of claim 1. An interaction of the specified features to provide any kind of technical effect is not apparent and has not been argued by the appellant.

5.6 As a consequence, the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step within the meaning of Article 56 EPC.



6. Inventive step - third auxiliary request
- 6.1 Claim 1 of the third auxiliary request is identical to claim 1 of the second auxiliary request, except that the concentration range for spray-dried yoghurt powder is set at 0.01 to 3% by weight.
- 6.2 Lowering the upper limit for the concentration of the spray-dried yoghurt powder does not change the situation discussed above in the context of the second auxiliary request (see paragraphs 5.1 to 5.6 *supra*).
- 6.3 As a consequence, the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step within the meaning of Article 56 EPC.

## Order

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

The appeal is dismissed.

The Registrar:

The Chairman:



L. Fernández Gómez

J. Riolo

Decision electronically authenticated