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Datasheet for the decision of 10 January 2023

Case Number:	T 2234/19 - 3.3.10
Application Number:	12732596.7
Publication Number:	2723308
IPC:	A61K8/84, A61K8/34, A61K8/41, A61K8/46, A61Q5/06, A61K8/97, A61Q5/12, A61K8/81, A61Q5/02, A61K8/891, A61K8/92, A61K8/36, A61Q5/00, A61K8/89
Language of the proceedings:	EN

Title of invention:

COSMETIC COMPOSITION COMPRISING AT LEAST ONE PARTICULAR AMPHOTERIC POLYMER AND AT LEAST ONE PARTICULAR CONDITIONING AGENT

Patent Proprietor:

L'Oréal

Opponent:

Kao Germany GmbH

Headword:

COSMETIC COMPOSITION/L'OREAL

Relevant legal provisions:
EPC Art. 54, 56, 111(1), 123(3)
RPBA 2020 Art. 11

Keyword:
Novelty - (yes)
Remittal - (no)
Main request: Inventive step - (no)
Auxiliary request 1: Amendments - extension beyond the content of the application as filed (yes)
Auxiliary request 2: Inventive step - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 2234/19 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 10 January 2023

Appellant I: (Patent Proprietor)	L'Oréal 14, rue Royale 75008 Paris (FR)
Representative:	Casalonga Casalonga & Partners Bayerstraße 71/73 80335 München (DE)
Appellant II: (Opponent)	Kao Germany GmbH Pfungstädter Str. 98-100 64297 Darmstadt (DE)
Representative:	Grit, Mustafa Kao Germany GmbH Pfungstädter Strasse 98-100 64297 Darmstadt (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 5 June 2019 concerning maintenance of the European Patent No. 2723308 in amended form.**

Composition of the Board:

Chairman	P. Gryczka
Members:	J.-C. Schmid
	L. Basterreix

Summary of Facts and Submissions

I. Appellant I (proprietor of the patent) and appellant II (opponent) lodged an appeal against the interlocutory decision of the opposition division maintaining European patent No. 2 723 308 on the basis of claims 1 to 15 filed during the oral proceedings held on 17 May 2019 as auxiliary request 3.

Claim 1 of the patent as granted reads as follows:

"1. Cosmetic composition comprising:
a) - one or more amphoteric polymers comprising a repetition of:
(i) one or more units obtained from a monomer of (meth)acrylamide type,
(ii) one or more units obtained from a monomer of (meth)acrylamidoalkyltrialkylammonium type, and
(iii) one or more units obtained from an acidic monomer of (meth)acrylic acid type,
the said amphoteric polymer(s) being present in the composition in an amount of between 0.01 % and 10% by weight relative to the total weight of the composition, and
b) - one or more conditioning agents chosen from plant oils, mineral oils, non-volatile linear silicones of polydialkylsiloxane structure, non-volatile linear silicones of polydiarylsiloxane structure, non-volatile linear silicones of polyalkylarylsiloxane structure, fatty acid diesters of polyethylene glycol comprising from 2 to 50 oxyethylene units, and a mixture thereof, the total amount of said conditioning agent(s) present in the composition being between 0.01% and 20% by

weight, relative to the total weight of the composition."

II. Notice of opposition had been filed by appellant II requesting revocation of the patent in suit in its entirety on the grounds of lack of novelty and inventive step (Article 100(a) EPC) based *inter alia* on the following documents

(1) EP-A-1 66 592,
(4) JP-A-2010-215531, and
(4a) English translation of document (4).

According to the opposition division, the subject-matter of claim 1 of the patent as granted lacked novelty over example 8 of document (1). Auxiliary request 1 was rejected for not complying with Rule 80 EPC and auxiliary request 2 for not complying with Article 123(3) EPC.

Claim 1 of auxiliary request 3 maintained by the opposition division reads as follows:

"1. Cosmetic composition comprising:
a) - one or more amphoteric polymers comprising a repetition of:
(i) one or more units obtained from a monomer of (meth)acrylamide type,
(ii) one or more units obtained from a monomer of (meth)acrylamidoalkyltrialkylammonium type, and
(iv) one or more units obtained from an acidic monomer of (meth)acrylic acid type,
the said amphoteric polymer(s) being present in the composition in an amount of between 0.01% and 10% by weight relative to the total weight of the composition, and

b) - one or more conditioning agents chosen from plant oils, mineral oils, fatty acid diesters of polyethylene glycol comprising from 2 to 50 oxyethylene units, and a mixture thereof,
the composition may further comprise additional conditioning agents chosen from non-volatile linear silicones of polydialkylsiloxane structure, non-volatile linear silicones of polydiarylsiloxane structure, and non-volatile linear silicones of polyalkylarylsiloxane structure,
the total amount of said conditioning agent(s) present in the composition being between 0.01% and 20% by weight, relative to the total weight of the composition."

Document (1) was the closest state of the art to the invention. The technical problem was the provision of cosmetic compositions with improved properties on the hair. This problem was solved in the light of the comparative report filed on 15 March 2019 (document (8)) which showed a significant and unexpected improvement in hair lankness obtained by the claimed composition compared to the compositions of document (1). The subject-matter of the claims of auxiliary request 3 involved therefore an inventive step (Article 56 EPC).

III. According to appellant I, the subject-matter of claim 1 of the patent as granted (main request) was novel over document (1). Claims 1 to 15 of auxiliary request 1, identical to auxiliary request 1 pending before the opposition division, satisfied the requirements of Rule 80 EPC. Auxiliary request 2 corresponded to auxiliary request 3 which was found to meet the requirement of the EPC by the opposition division. With the statement of the grounds of appeal dated 14 October 2019,

appellant I furthermore filed auxiliary requests 3 and 4.

Claim 1 of auxiliary request 1 differs from claim 1 of auxiliary request 3 maintained by the opposition division in that it is not the total amount of **"said"** conditioning agent(s) present in the composition which should be between 0.01% and 20% by weight, relative to the total weight of the composition, but the total amount of conditioning agent(s) present in the composition.

IV. According to appellant II, the subject-matter of claim 1 of the request maintained by the opposition division lacked an inventive step starting from document (1) as the closest state of the art to the invention.

V. In reply to the grounds of appeal of appellant II, appellant I filed a fresh auxiliary request 3, and renumbered former auxiliary requests 3 and 4 as auxiliary requests 4 and 5, respectively.

VI. With a letter dated 19 May 2021, appellant I filed a new test report (document 13).

VII. Appellant I requested that the decision under appeal be set aside and the patent be maintained as granted, or subsidiarily that the patent be maintained on the basis of auxiliary request 1 filed with the letter setting out the grounds of appeal dated 14 October 2019, or on the basis of auxiliary request 2 (patent as maintained by the opposition division on the basis of auxiliary request 3 in opposition proceedings), or on the basis of auxiliary requests 3 to 5 filed with the reply to appellant II's grounds of appeal dated 28 February 2020.

Appellant I also requested that the case be remitted to the opposition division for further examination of inventive step of the claims of the patent as granted.

Appellant II requested that the decision under appeal be set aside and the patent be revoked. It furthermore requested that auxiliary request 4 and document (13) not be admitted in the appeal proceedings.

VIII. At the end of the oral proceedings, the decision of the Board was announced.

Reasons for the Decision

Main request: patent as granted

1. *Novelty*

Appellant II bases its objection of lack of novelty against claim 1 of main request on the combination of example 8 with the general teaching of document (1).

1.1 D1 discloses an aqueous cleansing composition comprising a surfactant and an amino acid or an amphoteric polymer (see claim 1).

The composition disclosed in example 8 of document (1) comprises 0.5wt% of dimethylpolysiloxane (silicone SH-200C (5000cs), a product of Dow Corning Toray Silicone) which is a hair conditioning agent required by the composition of claim 1 of the main request in the claimed weight range (see page 8, paragraph [0041]).

The amphoteric polymer present in the composition of example 8 of document (1) is Merquat 2001, which is is a methyl acrylate/acrylic acid/ methacrylamidopropyltrimethylammonium chloride copolymer (see page 3, line 29 and 30). This amphoteric polymer is not required by claim 1 of the main request.

Paragraph [0018] on page 3 of document (1) discloses a list of suitable amphoteric polymers. These include Merquat 2001 used in example 8, and also Merquat 2003, which is acrylamide/acrylic acid/ methacrylamidopropyltrimethylammonium chloride amphoteric polymer required by claim 1 of the main request.

Claim 4 of document (1) also discloses that the amphoteric polymer may be an acrylamide/acrylic acid/ methacrylamidopropyltrimethylammonium chloride copolymer.

1.2 According to appellant II, document (1) discloses that the cleansing solution comprises an amphoteric polymer. Each composition of the examples of document (1) is disclosed to comprise an amphoteric polymer. The nature of the amphoteric polymer used in the given example is then indicated in brackets in the examples. It is therefore clear that an acrylamide/acrylic acid/ methacrylamidopropyltrimethylammonium chloride copolymer as recited in claim 4 or in paragraph [0018] of document (1) is used as amphoteric polymer in example 8. Thus, example 8 falls within the scope of claim 1 of the patent as granted.

1.3 The board first notes that the disclosure of a document is indeed not limited to the detailed information given in the examples, but includes the entire disclosure of the document. However, in deciding what can be directly and unambiguously derived from a document, different passages can only be combined for denying novelty if the skilled reader finds in the document a direct pointer to combine them.

Conditioning agents are not required by the compositions disclosed in document (1), let alone dimethylpolysiloxane. Dimethylpolysiloxane is only disclosed as an additional ingredient in the particular shampoo formulation of example 8.

The amphoteric polymer which is in the composition of example 8 is Merquat 2001, i.e. methyl acrylate/acrylic acid/methacrylamidopropyltrimethylammonium chloride copolymer. The skilled person does not find any indication in document (1) to select acrylamide/acrylic acid/methacrylamidopropyltrimethylammonium chloride copolymer from paragraph [0018] of the description, which also indicates other amphoteric polymers to be equally suitable, and to combine it particularly with the formulation of example 8 which comprises a dimethylpolysiloxane. The combination of dimethylpolysiloxane with an acrylamide/acrylic acid/ methacrylamidopropyltrimethylammonium chloride copolymer is therefore not disclosed in document (1).

1.4 The board therefore arrives at the conclusion that the subject-matter of claim 1 of the main request is novel over document (1).

2. *Remittal to the opposition division*

Appellant I requested that the case be remitted to the opposition division for assessing inventive step of the subject matter of claim 1 of the main request.

The opposition division ruled on the inventive step, albeit only in the context of the slightly reduced scope of the then pending auxiliary request 3.

However, the issue of inventive step for the main request is based on the same closest prior art document and the same means of evidence as auxiliary request 3 pending before the opposition division. Therefore, the board sees no special reasons which could justify a remittal to the opposition division for examination of inventive step of the main request (Article 111(1) EPC; Article 11 RPBA).

3. Inventive step

3.1 *Closest* prior art.

Document (1) represents the closest prior art to the invention, which finding was agreed with by the parties.

This document relates to cleansing compositions that make the hair substantially tangle-free upon shampooing and do not give the hair a dry and rough feeling after shampooing (see paragraph [0007]). The composition disclosed in document (1) comprises a surfactant, an amphoteric polymer and water (see claim 1).

The amphoteric polymer may be an acrylamide/acrylic acid/methacrylamidopropyltrimethylammonium chloride

copolymer sold under the name MERQUAT 2003 (see paragraph [0018]).

The compositions of document (1) may further comprise oily components such as coconut oil triglycerides (see paragraph [0029] or dimethylpolysiloxane (see example 8).

The composition of example 8 of document (1) comprises a methyl acrylate/acrylic acid/methacrylamidopropyl-trimethylammonium chloride copolymer (MERQUAT 2001) and a dimethylpolysiloxane.

This composition represents the closest state of the art to the invention and differs from the compositions of claim 1 of the main request only by the nature of the amphoteric polymer, namely in that it comprises units obtained from methyl acrylate monomers and not from acrylamide monomers as required by claim 1 of the main request.

3.2 *Technical problem*

According to appellant I, the technical problem to be solved by the invention is the provision of a composition capable of providing better lightness properties to the hair by avoiding build-up of conditioner residue on the hair.

3.3 *Solution*

The solution is the composition of claim 1 characterized by the structure of the amphoteric polymer.

3.4 Success

During the oral proceedings before the board, appellant I relied on the results disclosed in the comparative test report of document (8) in order to show that this problem is solved by the claimed compositions.

In this test report, the hair lightness properties obtained by using four shampoo compositions A1 to A3 and B are compared. However, none of the compared compositions comprises the non-volatile dimethyl polysiloxane used in composition of example 8 of document (1) and required by the compositions of claim 1 of the main request as a conditioning agent.

Therefore, the comparison of compositions A1, A2 and A3 with the claimed composition B is not relevant to show the claimed compositions comprising non-volatile dimethyl polysiloxane as conditioning agent lead to improved hair lightness properties compared to the shampoo composition disclosed in example 8 of document (1).

The technical problem has therefore to be reformulated in a less ambitious manner, namely as the provision of alternative cosmetic compositions.

3.5 *Obviousness*

Document (1) discloses that suitable amphoteric polymers are acrylic acid/dimethyldiallylammonium chloride copolymer (Merquat 280 or Merquat 295), acrylamide/acrylic acid/dimethyldiallylammonium chloride copolymer (Merquat plus 3330, Merquat plus 3331 or Merquat 3333), methyl acrylate/acrylic acid/ methacrylamidopropyltrimethylammonium chloride copolymer (Merquat 2001) and acrylamide/acrylic acid/

methacrylamidopropyltrimethylammonium chloride copolymer (Merquat 2003) (see paragraph [0018]; claim 4).

The choice of acrylamide/acrylic acid/ methacrylamidopropyltrimethylammonium chloride (Merquat 2003) among suitable amphoteric polymers disclosed in document (1) lies within the routine activity of the skilled person faced with the problem of providing an alternative cosmetic composition. The skilled person would thus arrive at the compositions of claim 1 of the main request without using any inventive skill.

3.6 The subject-matter of claim 1 of the main request therefore lacks an inventive step.

Auxiliary request 1

4. *Article 123(3) EPC*

Claim 1 of the patent as granted requires that the claimed composition comprises one or more conditioning agents chosen from plant oils, mineral oils, non-volatile linear silicones of polydialkylsiloxane structure, non-volatile linear silicones of polydiarylsiloxane structure, non-volatile linear silicones of polyalkylarylsiloxane structure, fatty acid diesters of polyethylene glycol comprising from 2 to 50 oxyethylene units, and a mixture thereof.

Claim 1 of the patent as granted further requires that the total amount of **said** conditioning agent(s) present in the composition, namely the conditioning agent listed in part b) of claim 1, being between 0.01% and 20% by weight, relative to the total weight of the composition. Claim 1 of the patent as granted does not

exclude the presence of other conditioning agents in the claimed composition.

Claim 1 of auxiliary request 1 requires that the total amount of conditioning agent(s) present in the composition being between 0.01% and 20% by weight, relative to the total weight of the composition. Claim of auxiliary request 1 therefore no longer requires that the composition shall comprise at least 0.01% by weight of the conditioning agents listed under part b) of claim 1 of the patent as granted. Accordingly, claim 1 of auxiliary request 1 has been amended in such a way as to extend the protection conferred by the patent as granted. Consequently, claim 1 of auxiliary request 1 does not meet the requirement of article 123(3) EPC.

Auxiliary request 2

The compositions of claim 1 of auxiliary request 2 require a conditioning agent selected from plant oils, mineral oils or fatty acid diesters of polyethylene glycol comprising 2 to 50 oxyethylene units or mixture thereof.

5. *Inventive step*

5.1 The technical problem starting from document (1) as the closest state of the art is the provision of a composition capable of providing better lightness properties to the hair by avoiding build-up of conditioner residue on the hair.

5.2 *Success*

5.2.1 The experimental report in document (8) shows that a shampoo composition comprising avocado oil, which is a

plant oil, as a conditioning agent leads to hair with improved lightness properties when the amphoteric polymer used is Merquat 2003 rather than Merquat 2001 or Merquat plus 3330. Furthermore, this improvement is not retained when isopropyl myristate is used as conditioning agent.

This experiment report therefore demonstrates that the choice of a particular amphoteric polymer confers better lightness property on the hair when avocado oil is used as a conditioning agent. In view of these results, the board considers that the technical problem of hair lightness improvement is solved by the compositions of claim 1 of auxiliary request 2.

5.2.2 According to appellant II, the compositions according to claim 1 of auxiliary request 2 also contemplates mineral oils and fatty acid diesters of polyethylene glycol as conditioning agents, whereas the comparative experiments in document (8) are carried out only with compositions comprising avocado oil as conditioning agent. An extrapolation of the improvement to compositions according to the claim 1 of auxiliary request 2 comprising a mineral oil or a fatty acid diester of polyethylene glycol as conditioning agent is not credible.

5.2.3 Avocado oil is a vegetable oil which is mainly constituted from esters derived from glycerol and fatty acids. Although the demonstration of the improvement was made by comparing compositions comprising avocado oil, there is *a priori* no reason to believe that a similar improvement would not be present when the shampoo composition comprises another oil as conditioning agent, such as a mineral oil, or other oily components, such as fatty acid esters.

It is therefore plausible that the hair lightness effect is retained when the conditioning agent is a mineral oil or a fatty acid ester of polyethylene glycol.

Therefore, in the absence of evidence to the contrary, the appellant II's assertion that all compositions of claim 1 would not represent a solution to the technical problem remains speculative and therefore must be discarded.

5.2.4 Appellant II submitted that the burden of proof lies by Appellant I to prove that the technical problem is solved across the breadth of the claims.

However, when assessing inventive step the opposition division considered that the technical problem was to provide hair cleansing compositions with improved hair properties, which finding is now challenged by appellant II. The burden of proof is therefore on appellant II to prove that the objective technical problem defined by the opposition division is not the provision of cosmetic compositions with improved hair properties.

5.2.5 Hence the board considers that the compositions of claim 1 of auxiliary request 2 are solutions to the problem of improving lightness properties on the hair.

5.3 *Obviousness*.

Document (1) relates to cleansing compositions that make the hair substantially tangle-free upon shampooing and do not give the hair a dry and rough feeling after shampooing (see paragraph [0007]). This document does not address the problem of build-up of conditioner

residue on the hair, and therefore does not provide any solution to minimize such residue build-up on the hair in order to improve hair lightness.

During the oral proceedings before the board, appellant II also addressed document (4a). Document (4a) aims at suppressing the occurrence of unpleasant hardness on the hair of cosmetic compositions comprising an amphoteric polymer (see paragraph [0005]). The solution proposed consists of adding a diester of cyclohexane-1,4-dicarboxylic acid with a polyoxyethylene alkyl ether and an amino acid to a composition comprising an amphoteric polymer (see paragraph [0006]). Document (4a) therefore does not point to the claimed solution.

Thus, neither document (1) nor document (4a) provide information on the possible benefits on hair lightness resulting from the combination of a particular amphoteric polymer and conditioning agents selected from plant oils, mineral oils or fatty acid esters of polyethylene glycol.

Therefore, the board comes to the conclusion that the subject-matter of claim 1 of the main request is not rendered obvious by document (1) alone or in combination with document (4a).

5.4 An inventive step can therefore be acknowledged for the subject matter of claim 1, by the same token for the subject-matter of dependent claims 2 to 12, for the process of claim 13 using the compositions of claims 1 to 12 and also for the use of claims 14 and 15 involving the compositions of claims 1 to 12.

6. Since auxiliary request 2, which corresponds to the request found allowable by the opposition division, is allowable, there is no need for the board to rule on the admissibility of the experimental report of document (13), or on auxiliary requests 3 to 5.

Order

For these reasons it is decided that:

The appeals are dismissed

The Registrar: The Chairman:

C. Rodríguez Rodríguez P. Gryczka

Decision electronically authenticated