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Datasheet for the decision of 18 December 2014

Case Number: T 1020/14 - 3.3.10

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Language of the proceedings: EN

Title of invention:
Polymer thickened hair colouring and bleaching compositions

Applicant:
The Procter & Gamble Company

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
T 0020/81

Catchword:

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Case Number: T 1020/14 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 18 December 2014

Appellant: (Applicant)	The Procter & Gamble Company One Procter & Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	Boubel, Thomas Procter & Gamble Service GmbH IP Department Frankfurter Strasse 145 61476 Kronberg im Taunus (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 13 December 2013 refusing European patent application No. 05023908.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	P. Gryczka
Members:	R. Pérez Carlón
	F. Blumer

Summary of Facts and Submissions

I. The appellant (applicant) lodged an appeal against the decision of the examining division to refuse European patent application No. 05023908.6.

II. The sole request in appeal proceedings is identical to the main request filed at the oral proceedings before the examining division. Claim 1 reads as follows:

"*A hair colouring or bleaching composition comprising*

i) at least 0.2 mol/l of a source of carbonate, carbamate, hydrogencarbonate or peroxymonocarbonate ions and mixtures thereof,

ii) at least one oxidizing agent and

iii) at least one polymeric thickener selected from associative polymers, non-associative polycarboxylic polymers, and mixtures thereof, wherein said composition has a pH of up to and including 9.3 and wherein said composition comprises less than 1% of radical scavengers, and

iv) a surfactant selected from alkyl ether phosphates having 1-20 ethylene oxide units."

III. The examining division considered that document D3 (US 2004/0098816) was the closest prior art. The claimed hair colouring or bleaching compositions differed from that of example 3 of document D3 in that they required a surfactant selected from alkyl ether

phosphates having 1-20 ethylene oxide units. The experimental evidence on file did not show any effect due to this distinguishing feature; the technical problem underlying the subject-matter claimed was thus the provision of alternative hair colouring or bleaching compositions and the proposed solution, which was compositions comprising a surfactant selected from alkyl ether phosphates having 1-20 ethylene oxide units, was obvious in view of the general knowledge of the person skilled in the art.

IV. With the statement setting out the grounds of appeal, the appellant filed further comparative data intended to show an enhanced viscosity of the claimed hair colouring or bleaching compositions resulting from the distinguishing feature vis-à-vis document D3 and argued as follows:

Example 3 of document D3, which was the closest prior art, disclosed a hair colouring or bleaching composition differing from that subject-matter of claim 1 in that it contained surfactants which were not alkyl ether phosphates having 1-20 ethylene oxide units. With regard to D3, the problem underlying the claimed invention was providing hair colouring or bleaching compositions with enhanced viscosity. This problem was credibly solved in the light of the experimental data submitted during examination and appeal proceedings, and the solution, which was compositions comprising surfactants selected from alkyl ether phosphates having 1-20 ethylene oxide units, was not obvious in the light of the prior art, with the consequence that the subject-matter claimed was inventive.

V. In a communication dated 20 October 2014 the board indicated that none of the experiments on file appeared

to provide a fair comparison which could show enhanced viscosity due solely to the presence of a surfactant with the required chemical structure; so the problem underlying the claimed invention could only be regarded as providing alternative hair dying or bleaching compositions. The solution, which was hair colouring or bleaching compositions comprising a surfactant which was an alkyl ether phosphate having 1-20 ethylene oxide units, appeared obvious since it was known at the date of filing for example from document D16 (US 2003/0226217) that these compounds were suitable for these type of composition, with the consequence that the subject-matter of claim 1 appeared not to be inventive. Reference was also made to D17 (Wella Welloxon Perfect 30 Volume Developer, Material Safety Data Sheet) showing the composition of "Wella Welloxon Perfect".

VI. In its response to the board, the appellant argued that even if it were considered that the technical problem underlying the claimed invention was providing alternative hair colouring or bleaching compositions, D16 only suggested replacing polymeric thickeners with alkyl ether phosphate surfactants having 1-20 ethylene oxide units, whereas the claimed invention was directed to compositions which contained both compounds. There was no indication on file which could hint to the skilled person that such a combination of both types of thickener might be suitable for hair colouring or bleaching compositions; so the subject-matter of claim 1 was inventive.

VII. The appellant informed the board that it would not be represented at the oral proceedings, which took place in its absence on 18 December 2014.

VIII. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the main request as filed with letter dated 22 April 2014.

IX. At the end of the oral proceedings, the decision of the board was announced.

Reasons for the Decision

1. The appeal is admissible.

Inventive step:

2. Claim 1 relates to a hair colouring or bleaching composition comprising a defined amount of a source of carbonate, carbamate, hydrogencarbonate, peroxymonocarbonate or their mixtures (component i), an oxidizing agent (ii), one polymeric thickener (iii) and a surfactant (iv) selected from alkyl ether phosphates having 1-20 ethylene oxide units.

3. Closest prior art:

The examining division and the appellant considered document D3 to be the closest prior art, and the board sees no reason to differ.

Example 3 of document D3 discloses a two-part composition comprising ammonium carbamate (component i), hydrogen peroxide (ii) and Aculyn 22(R) (iii). This composition further contains surfactants such as oleic acid, C12-15 Pareth-9 and C12-15 Pareth-3, which are not alkyl ether phosphates having 1-20 ethylene oxide units as required by feature (iv) of claim 1.

These findings have not been challenged by the appellant.

4. Technical problem underlying the invention:

The appellant considered that the technical problem underlying the claimed invention was providing a hair colouring or bleaching composition with enhanced viscosity.

5. Solution:

The claimed solution is a hair colouring or bleaching composition which is characterised in that it contains a surfactant selected from alkyl ether phosphates having 1-20 ethylene oxide units.

6. Success:

The appellant has provided two sets of data intended to show that the presence of surfactants selected from alkyl ether phosphates having 1-20 ethylene oxide units enhances the viscosity of the claimed hair colouring or bleaching compositions.

6.1 The first set of data was submitted during examination proceedings with a letter dated 13 April 2010, and is intended to compare the composition according to example 3 of D3 with the one according to the claimed invention.

However, the composition according to claim 1 as prepared for the comparative tests does not contain any isopropanol, whereas that according to example 3 of D3 contains as much as 13% of this solvent.

Already for this reason, the board agrees with the examining division that any increase in viscosity cannot be considered to be solely the consequence of the distinguishing feature (i.e. alkyl ether phosphate surfactants having 1-20 ethylene oxide units) vis-à-vis the closest prior art.

6.2 The second set of data was filed with the statement setting out the grounds of appeal, and compares two tint compositions A1 and A2 comprising ammonium carbonate (i), A2 differing from A1 in that it further contains 5% of Crodafos CES, which is an alkyl ether phosphate surfactant having 1-20 ethylene oxide units as required by feature (iv) of claim 1.

Compositions A1 and A2 were mixed with Wella Welloxon Perfect 9%, which is a developer containing 9% of hydrogen peroxide corresponding to component (ii) required by claim 1 (D17, section 3).

As acknowledged by the appellant, the mixtures obtained by combining A1 or A2 with this developer do not contain any polymeric thickener (iii); so neither the composition resulting from combining [A1+developer] is a composition according to example 3 of D3, nor the combination [A2+developer] is a composition according to the claimed invention.

For this reason alone, any viscosity improvement obtained cannot be considered solely due to the distinguishing feature of claim 1 with respect to the closest prior art.

The appellant has argued that this second set of experimental data sufficiently demonstrates that the presence of a surfactant of the type required by claim

1 increases the viscosity of the final mixture, despite the fact that the compositions tested do not comprise any polymeric thickener.

However, the board considers that a result which has been obtained in the absence of a polymeric thickener (i.e. for an embodiment outside the claimed subject-matter) would not necessarily be achieved by the claimed compositions, comprising such a polymeric thickener.

This argument of the appellant is thus unconvincing.

6.3 The board thus concludes that none of the data on file allows a fair comparison with the closest prior art D3.

It is thus not credible that the problem as defined above in point 4. is solved by the hair colouring or bleaching composition of claim 1.

7. Reformulation of the technical problem underlying the invention:

According to the case law of the boards of appeal, alleged but unsupported advantages cannot be taken into consideration in determining the problem underlying the invention (see e.g. decision T 20/81, OJ EPO 1982, 217, Reasons 3, last paragraph). As the alleged improvement in terms of increased viscosity lacks the required support, the technical problem as defined above needs reformulation.

Thus, in view of the teaching of D3, the problem underlying the claimed invention can only be considered to be providing alternative hair colouring or bleaching

compositions.

8. Solution:

The claimed solution is a hair colouring or bleaching composition according to claim 1, characterised in that it contains a surfactant selected from alkyl ether phosphates having 1-20 ethylene oxide units.

9. Success:

The board considers that this technical problem has been solved by the compositions forming the subject-matter of claim 1, since alkyl ether phosphates having 1-20 ethylene oxide units such as Crodafos CES are suitable ingredients for hair colouring or bleaching compositions (D16, examples).

10. Lastly, it remains to be decided whether or not the proposed solution to the objective problem underlying the patent in suit is obvious in view of the state of the art:

10.1 Alkyl ether phosphates having 1-20 ethylene oxide units such as Crodafos CES are suitable components for hair colouring and bleaching compositions (D16, examples) and provide hair colouring or bleaching compositions with suitable rheology (D16, paragraph [70]). The skilled person, trying to obtain further hair colouring or bleaching compositions, would include components suitable for such compositions, in particular those having a beneficial effect such as alkyl ether phosphates having 1-20 ethylene oxide units (D16), and would arrive at the claimed solution without using inventive skills.

For these reasons the board concludes that the subject-matter of claim 1 is not inventive, as required by Article 56 EPC.

10.2 The appellant has argued that from the teaching of document D16 the skilled person could only extract the information that alkyl ether phosphate surfactants having 1-20 ethylene oxide units are suitable thickeners which could replace polymeric thickeners, but would not consider using compounds of both types in combination.

D16 discloses that alkyl ether phosphate surfactants such as Crodafos are a suitable alternative to polymeric thickeners when trying to develop hair colouring or bleaching compositions with suitable rheology [70].

In the present case, Crodafos CES had been disclosed in D16 not only as a suitable component for this type of composition, but also as being beneficial in terms of improved rheology. The board thus concludes that the skilled person would have considered adding Crodaphos CES as a further component in the light of D16, also in combination with the thickener (iii) required by claim 1.

This argument of the appellant is therefore unconvincing.

Order

For these reasons it is decided that:

1. The appeal is dismissed.

The Registrar: The Chairman:

C. Rodríguez Rodríguez P. Gryczka

Decision electronically authenticated