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**Datasheet for the decision
of 12 February 2024**

Case Number: T 0345/22 - 3.3.10

Application Number: 16152067.1

Publication Number: 3047843

IPC: A61K8/34, A61K8/41, A61Q5/10,
A61K8/19

Language of the proceedings: EN

Title of invention:
FIRST AGENT FOR OXIDATION HAIR DYE AND METHOD FOR STABILIZING
COLOR TONE OF OXIDATION HAIR DYEING AGENT COMPOSITION

Patent Proprietor:
Hoyu Co., Ltd.

Opponent:
Kao Germany GmbH

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:

Decisions cited:

Catchword:



Beschwerdekammern

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Case Number: T 0345/22 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 12 February 2024

Appellant:

(Opponent)

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Representative:

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Respondent:

(Patent Proprietor)

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Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
23 December 2021 concerning maintenance of the
European Patent No. 3047843 in amended form.**

Composition of the Board:

Chair

P. Gryczka

Members:

R. Pérez Carlón

T. Bokor

Summary of Facts and Submissions

- I. The appellant (opponent) lodged an appeal against the interlocutory decision of the opposition division on the maintenance of European patent No. 3 047 843 in the form of the main request then pending.
- II. Notice of opposition had been filed on grounds including lack of inventive step (Article 100(a) EPC).
- III. The following document is relevant to the present decision:
- D1: EP 2 087 878 A1
- IV. The main request before the opposition division is also the respondent's (patent proprietor's) main request in appeal. Claim 1 reads as follows:

"A first agent for oxidation hair dye containing a carbonate, wherein an upper limit of the content of the carbonate in the first agent is 10% by mass or less, the first agent comprising

(A) at least one selected from resorcin and salts thereof, a compounding amount of the component (A) being 0.03 to 0.1% by mass,

(B) at least one coupler selected from m-aminophenol, 5-amino-o-cresol, and α -naphthol, and

(C) 0.01 to 0.45% by mass of at least one dye intermediate selected from p-phenylenediamine, toluene-2,5-diamine, p-aminophenol, N,N-bis(2-hydroxyethyl)-p-phenylenediamine and salts thereof,

a mass ratio of a content of the component (B) to a content of the component (A) in the first agent for

oxidation hair dye being 0.6 to 10."

- V. The opposition division concluded that D1 was a suitable starting point for examining inventive step. The composition in Table 1 of D1 disclosed an agent with a carbonate proportion over the threshold set by claim 1. The problem underlying the claimed invention was the stabilisation of the first agent for oxidation hair dyes and in particular of coupler (B). No indication were found in the prior art which could have led the skilled person to modify the compositions in the manner proposed by claim 1 to solve that problem. The claimed subject-matter was thus inventive.
- VI. With the reply to the grounds of appeal, the respondent filed three auxiliary requests. Claim 1 of the first auxiliary request is identical to claim 1 of the main request. Claim 1 of the second auxiliary request limits the required carbonate to twelve different chemicals, and claim 1 of the third auxiliary request requires the first agent for oxidation hair dye to contain ammonium hydrogencarbonate.
- VII. The appellant argued on inventive step as follows. If the claimed agent were to be novel over that of D1, it would be by virtue of the proportion of carbonate. For want of a comparison reflecting the effect of the difference, the sole problem which could be considered solved was that of providing an alternative. The claimed solution, characterised by a slightly lower proportion of carbonate, would have been obvious for a skilled person looking for an alternative.
- VIII. The respondent argued that paragraph [0074] of the patent showed that the claimed compositions were stable at 45°C for one month. The claimed agent thus provided

an unexpected effect and the burden of proving the contrary was on the appellant. The claimed subject-matter was thus inventive.

IX. The board informed the parties in a communication dated 17 November 2023 of its preliminary view that starting from D1 the problem of providing a first agent for oxidation hair dye having increased stability, in particular of the coupler component (B), was not credibly solved. The examples of the patent either contained 4% or no carbonate at all. No comparison showed the effect of the carbonate proportion, let alone with respect to the proportion of 10.5% disclosed in D1. Thus the problem underlying the invention should be reformulated in a less ambitious manner.

X. The respondent replied to the board's communication by withdrawing its request for oral proceedings, which had been summoned. The oral proceedings were cancelled.

XI. The parties' final requests were as follows:

The appellant requested that the decision under appeal be set aside and the patent revoked.

The respondent requested that the appeal be dismissed, or that the patent be maintained with the claims of the first to third auxiliary requests as filed with the reply to the grounds of appeal.

Reasons for the Decision

1. The appeal is admissible.
2. Claim 1 of the main request relates to a first agent for oxidation hair dye containing a carbonate. The

upper limit of the carbonate proportion is 10% by mass. The agent further contains defined proportions of resorcin, a coupler and a dye.

3. Closest prior art - D1

It was undisputed that D1 was a suitable starting point for examining inventive step, or that the first agent blend component disclosed in Table 1 of D1 contained 10.5% by mass of ammonium hydrogencarbonate, which was the carbonate in the examples of the claimed invention, 0.07% resorcin, 0.07% of the couplers required by claim 1 and 0.18% toluene-2,5-diamine.

In the following the board assumes, for the benefit of the respondent, that the first agent for oxidation hair dye of claim 1 differs from that in D1 by virtue of the carbonate proportion i.e. 10% by mass or less, instead of 10.5%. The question whether this feature can impart novelty can be left unanswered.

4. Problem underlying the claimed invention.

The opposition division formulated the problem as to provide a first agent for oxidation hair dye having increased stability, in particular of the coupler component (B), see point 41 of the appealed decision. The respondent did not explicitly formulate the problem underlying the claimed invention in appeal and referred in general to "stabilisation effects".

5. Solution

The claimed solution is the agent of claim 1, which is characterised by a proportion of carbonate of 10% by

mass or less.

6. Success

6.1 The respondent argued that the change in colour tone was an indicator of the composition stability.

6.2 The examples of the patent either contain 4% carbonate (examples 1 to 11, comparative examples 1 to 5 and 7) or lacked carbonate (comparative example 6). The results demonstrate that the absence of carbonate is detrimental (see also paragraph [0017] of the patent).

There is however no evidence on file which could provide a comparison arising from the feature assumed to distinguish the claimed invention from the composition in Table 1 of D1, namely a proportion of carbonate of less than 10%.

The problem formulated by the opposition division has thus not been credibly solved.

6.3 The respondent argued that it was for the appellant to prove that the alleged effect was not achieved. However, each party bears the burden of proving the facts it alleges. It is the respondent's argument that an improvement has been achieved and the burden of proof is on the respondent to show that the claimed subject-matter leads to any advantageous effect mentioned in the patent.

6.4 The respondent also relied on paragraph [0074] which showed that the claimed compositions were stable at 45°C for one month. However, none of the compositions tested reflect those of the prior art. It cannot be concluded that an improvement in terms of stability

over the composition in D1 has been achieved.

7. Reformulation of the technical problem

In accordance with the case law (Case Law of the Boards of Appeal, 10th Ed. 2022, I.D.4.3.1) alleged but unsupported advantages cannot be taken into consideration in determining the problem underlying the invention. As the alleged improvement in terms of stability of the dyeing composition lacks the necessary experimental support, the problem underlying the claimed invention needs to be formulated in a less ambitious manner.

In view of the available data, the problem is reformulated as to provide an alternative first agent for oxidation hair dye. In view of the examples in the patent, this problem has been credibly solved by the claimed agent.

8. Obviousness

The closest prior art discloses a composition containing 10.5% by mass of carbonate. Seeking an alternative, a skilled person would have considered minor modifications in the components proportions and would thus have arrived at the claimed agent having 10% mass or less of carbonate without an inventive step.

The claimed first agent for oxidation hair dye is thus not inventive (Article 56 EPC) and the respondent's main request not allowable.

9. Auxiliary requests

Claim 1 of the first auxiliary request is identical to

claim 1 of the main request. The objection in the previous points thus applies analogously.

Claim 1 of the second and third auxiliary requests include ammonium hydrogencarbonate as carbonate. Ammonium hydrogencarbonate is the carbonate in the composition of the closest prior art. As claim 1 of these requests do not include any feature further distinguishing the claimed agent from that in D1, the objections with respect of the main request apply analogously.

Therefore, none of the auxiliary requests is allowable and the patent must be revoked.

Order

For these reasons it is decided that:

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

The Registrar:

The Chair:



C. Rodríguez Rodríguez

P. Gryczka

Decision electronically authenticated