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# D E C I S I O N
## of 21 September 2001

**Case Number:** T 0696/97 - 3.3.7

**Application Number:** 84115691.2

**Publication Number:** 0148466

**IPC:** A61K 7/13

**Language of the proceedings:** EN

**Title of invention:**
Hair dye compositions

**Patentee:**
Kao Corporation

**Opponents:**
Wella AG
Henkel Kommanditgesellschaft auf Aktien

**Headword:**
-

**Relevant legal provisions:**
EPC Art. 56, 114(2)

**Keyword:**
"Inventive step - problem and solution"
"Public prior use - late submitted material - evidence admitted (no)"

**Decisions cited:**
-

**Catchword:**
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Beschwerdekammern | Boards of Appeal | Chambres de recours

**Case Number:** T 0696/97 - 3.3.7

**D E C I S I O N**
**of the Technical Board of Appeal 3.3.7**
**of 21 September 2001**

**Appellant:** (Opponent 02)
Henkel
Kommanditgesellschaft auf Aktien
TFP/Patentabteilung
D-40191 Düsseldorf (DE)

**Representative:**
-

**Respondent:** (Proprietor of the patent)
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**Representative:**
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**Party as of right:** (Opponent 01)
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**Representative:**
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**Decision under appeal:**
**Interlocutory decision of the Opposition Division of the European Patent Office posted 2 May 1997 concerning maintenance of European patent No. 0 148 466 in amended form pursuant to Article 106(3) EPC.**

**Composition of the Board:**

**Chairman:** R. E. Teschemacher
**Members:** B. J. M. Struif
B. L. ter Laan

## Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 148 466 with respect to European patent application No. 84 115 691.2 was published on 7 March 1990, on the basis of two independent claims.

II. Two notices of opposition were filed on 29 November 1990 and 5 December 1990, respectively, on the grounds of lack of novelty and lack of inventive step under Article 100(a) EPC. The oppositions were supported *inter alia* by the following documents:

D1: DE-A-23 07 596.

D2: DD-A-10 140.

D4: S. Preysinger, "Das Haarfärben und Aufhellen mit Kleinol Gelee", Kleinol GmbH, Bad Segeberg, 1952, pages 5 to 9 and 60 to 65.

D7: US-A-3 857 674.

D8: Roger G. Bates, "Determination of pH, theory and practice", John Wiley & Sons, Inc., New York-London-Sydney, 1964, p. 119, table 5-11.

In addition, opponent 2 based its opposition on public prior use by referring to a number of documents designated as B1 to B5:

B1: Henkel, Production process THC Nr. 1, "Polycolor Tönungswäsche", dated 19 July 1972.

B2: Henkel, product information data sheet, "Poly

Color Tönungswäsche Hellblond, SR 403/1", status 6 October 1983.

B3: Henkel, product information data sheet, "Poly Clair Percarbamid Mischung D", status 8 May 1990.

B4: Henkel Kosmetik GmbH, invoice No. 0038, dated 17 January 1983.

B5: Henkel Kosmetik GmbH, invoice No. 0174, dated 17 January 1983.

III. By a decision announced at oral proceedings held on 17 December 1996 and issued in writing on 2 May 1997, the opposition division maintained the patent in amended form.

The decision was based on a set of two independent claims as the sole request, reading as follows:

"1. A bi-liquid type hair dye composition comprising (1) a color lotion component and (2) an oxidizer component, said color lotion component comprising (a) a dye intermediate and coupler in amounts effective for dyeing of hair, (b) ammonia in an amount effective to provide the composition with a pH of 7 to 9.5, and (c) ammonium chloride or ammonium nitrate in an amount effective to provide the composition with a concentration of 1 to 5 weight %, and effective for increasing the dyeing degree of the dye chosen, said oxidizer component comprising an oxidizing agent in an amount effective for dyeing of hair."

"2. A bi-liquid type hair bleach composition comprising (1) a color lotion component and (2) an oxidizer

component, said color lotion component comprising (a) ammonia in an amount effective to provide the composition with a pH of 7 to 9.5, and (b) ammonium chloride or ammonium nitrate in an amount effective to provide the composition with a concentration of 1 to 5 weight %, and said oxidizer component comprising an oxidizing agent in an amount effective for decolouring of hair."

The decision was based on the following reasons:

(a) The main request was considered to meet the requirements of Articles 123(2) and (3) EPC.

(b) The subject matter of claims 1 and 2 was held to be novel over the cited documents. Public prior use of the claimed composition had not been proven since the link between the documents supporting the allegation was missing and could not have been provided by any witnesses.

(c) Regarding inventive step, though the availability of the products B1 to B3 to the market before the priority date was acknowledged, those compositions were not bi-liquids and did not relate to the problem of increasing the dyeing degree, so that they could not form the closest prior art. Therefore, D2, which described the use of compositions containing triethanolamine, was considered to be the closest prior art. The problem, defined as increasing the dyeing degree, had been effectively solved by replacing the triethanolamine used in D2 by ammonia. This solution had not been made obvious by the cited prior art.

IV. On 27 June 1997 a notice of appeal against the above decision was filed by opponent 02 (appellant), the prescribed fee being paid and the statement of grounds of appeal being filed on the same day. In reply to a communication from the board, with a letter of 21 August 2001 the appellant submitted documents B7 to B9 as further evidence to supplement the alleged public prior use based on to B1 to B5:

B7: Henkel, product information data sheet, "Polycolor Tönungswäsche, Übersicht Deutschland", status 13 June 1990 (2 pages).

B8: Henkel, product information data sheet, "Polycolor Tönungswäsche, Entwickler Emulsion 6 %", status 1 July 1986 (3 pages).

B9: Test report dated 21 August 2001.

In the test report the pH value and the amount of ammonium chloride in a hair dye composition based on product information in B2, B7 and B8 were determined.

By letter dated 21 August 2001, the respondent filed a first and a second auxiliary request directed to use claims.

On 21 September 2001 oral proceedings were held, which Opponent 01 did not attend, as announced in a letter dated 20 June 2001.

V. The appellant, in writing and during the oral proceedings, argued in substance as follows:

(a) As to novelty, although a second public prior use

based on documents A1 to A3 had been argued in writing, during the oral proceedings no further evidence was offered and no further submissions were made. A link between documents B2 and B3 was no longer alleged.

(b) Documents B7 to B9 had not been filed before since it had been thought that the case was complete. Only after the board's communication accompanying the summons was it considered necessary to file further documents.

(c) Regarding inventive step, as demonstrated by documents B4 and B5, the colour lotion product "Hellblond 11" had been sold on the market before the priority date as a bi-liquid composition. The relevant data of the liquid colour lotion component, including the composition, the pH value and the amount used in the composition were described in B2 and B7. The corresponding data of the liquid oxidizer component could be gathered from B7 and B8. It was evident that the components B2 and B8 belonged together. Test report B9 was based on product information of B2, B7 and B8; it showed that the final composition, after mixing, had a pH value only slightly higher than according to present claim 1, whereas the ammonium chloride content fell within the claimed range. The small difference in pH could not involve an inventive step.

(d) Of the other documents, D7, which was considered to be the nearest prior art document, described a hair dye composition having a low pH value and containing ammonia, ammonium phosphate and a

liquid oxidizer. The claims of the patent in suit differed from D7 only in that a different buffer system was used to adjust the pH value. Although the problem of D7 was to provide a new hair dyestuff, its teaching also implied to provide a good dyeing effect and combing force. According to D4 a buffer system of mild alkali and basic salts was recommended to provide dyeing without impairing the hair. In D1, D2 and D8 the ammonia/ammonium chloride buffer had already been used in hair dye compositions and it was therefore an obvious alternative to replace the ammonia/ammonium phosphate buffer in D7 by those of the prior art. The respondent's test report of 7 August 1991 did not support a surprising effect since it was based on different experimental conditions so that no proper comparison could be made. It was obvious that higher pH values increased the combing force, as confirmed by the tests in the application as originally filed.

(e) The same arguments were valid when starting from D2 as the closest prior art document.

VI. The respondent's written and oral arguments can be summarized as follows:

(a) In the submission of the appellant dated 21 August 2001 a completely new case had been established. During the whole opposition proceedings the public prior use argument had been based on a composition containing a liquid colour lotion and a solid percarbamid oxidizer. Only one month before oral proceedings the appellant changed this basis to a bi-liquid composition. Since the information

concerning the compositions apparently derived from an internal database that was only available to the appellant, it was not evidenced what exactly had been made available to the public. The submission of these late filed documents therefore amounted to a procedural abuse.

Also, there had not been sufficient time to reproduce the appellant's test report and to check it. As a preliminary comment, in the calculation method for the amount of ammonium chloride, a small difference in density could have the effect that the amount was outside the claims.

Furthermore, if the new evidence were to be accepted, the proceedings could not be concluded because the respondent should be given the opportunity to fully comment on this completely new situation and to prepare own tests and counterarguments and if necessary prepare additional requests to overcome any objections. In this respect the respondent made reference to a number of decisions cited in "Case Law of the Boards of Appeal of the European Patent Office", 3rd edition 1998, VI.F.8.2.1.

Therefore, the late filed documents should not be considered.

(b) The problem in view of D7 was to provide a new class of dyestuff; it did not relate to improvement of the dyeing degree of the hair. D7 did not disclose bi-liquid compositions. D2 on the other hand, did relate to a bi-liquid system and to a problem similar to the one of the claimed

invention, so that it should be considered as the closest prior art. The effect compared to the compositions of D2 and D7 had been shown in a test report dated 7 August 1991 demonstrating an improved dying degree and combing force due to the claimed different buffer system involved. The appellant had not shown that the technical effect was only due to a difference in pH value. Therefore, the claimed subject-matter was inventive.

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

VIII. The respondent requested that the appeal be dismissed and that the patent be maintained in the version of the contested decision or, alternatively, that the patent be maintained on the basis of a first or a second auxiliary request submitted with letter dated 21 August 2001. In addition, he requested that the prior use based on documents B7 to B9 not be considered. Failing this, he requested that the proceedings be continued in writing, and, as a further alternative, that he be given the opportunity to file further requests.

IX. Opponent 01, party as of right to these proceedings, abstained from commenting and requested a decision on the file as it stood.

## Reasons for the Decision

1. The appeal is admissible

*Prior use based on documents B7 to B9*

2. Documents B7 to B9 were filed 1 month before the oral proceedings, to supplement the public prior use based on B1 to B5 already on file.

2.1 According to the opposition statement, B1 to B5 only referred to a kit of solid/liquid compositions, i.e. non bi-liquid hair bleaching compositions (paragraph I, pages 3 and 4). This position had been confirmed by the appellant's letter of 17 January 1994 (page 2, paragraph (b)) and the statement of appeal dated 25 June 1997 (whole page 4). The decision under appeal, which also mentioned the solid/liquid compositions of B1 to B5 (page 5, first and second full paragraph), had not been challenged by the appellant in this respect. Therefore, according to the information on file before the appellant's letter of 21 August 2001 the compositions based on documents B1 to B5 had been used only in the form of non bi-liquid compositions.

2.1.1 According to the appellant's new submission more than 10 years after the opposition had been filed, the colour component of B2 had however not been used together with a solid oxidizer according to B3, but instead with a liquid oxidizer according to B7 and B8. Thus, at a very late stage of the proceedings the character of the allegedly used product has changed from a solid/liquid composition to a bi-liquid composition, thus confronting the respondent and the board with a case that is entirely different from that upon which the appealed decision as well as the appeal itself had been based.

2.1.2 In accordance with the requirements of Article 113 EPC and the principle of equality between the parties the

respondent has to be given sufficient time to assess the late filed documents on their relevance, in particular by reproducing the test report and provide their own counter experiments. A period of one month before oral proceedings is considered insufficient to deal thoroughly and completely with this fresh case.

2.1.3 In view of the above, the admission of the late filed documents into the proceedings would lead to a considerable delay which would be in conflict with the principle that proceedings should be brought to a speedy conclusion.

2.2 The appellant's reference to a communication of the board cannot justify the late submission of B7 to B9. With respect to what was made available to the public the communication raised the question whether the pH value and the ammonium chloride concentration in the final composition after mixing could be derived from documents B1 to B3 (point 3.1.1). Whilst the opponent (appellant) in the opposition statement argued that these features could be measured in the final products (page 5, first paragraph), it is however well-established case law that the opponent has to prove his case. Consequently, the fact that the communication referring to a possible deficiency in the substantiation of the public prior use in the opposition statement triggered a further search in the appellant's own data base which lead to the submission of B7 to B9 involving actually a different prior use, demonstrates that the opponent's case was not prepared with due diligence from the beginning.

2.3 Although the appellant argued that the documents B2, B7 and B8 were related, the evidence linking those

documents is missing. It is not evidenced that the compositions provided by said documents are identical or similar to those which had been made publicly available for example by B4 and B5. Without such evidence a final assessment on public prior use is not possible.

2.3.1 Furthermore, although the amount of ammonium chloride in the final composition has been calculated in the appellant's experimental report to be 1.01 % by weight this calculation is based on the assumption that the density of the composition is that of water (1 g/cm$^3$). As the composition contains, apart from water, other components having a density different from water, a small deviation in the density can have the effect that the amount of ammonium chloride is not within but just outside the claimed range. In addition, the report itself confirms that the allegedly prior used product has a measured pH value of 9.7, which is outside the claimed pH range.

2.3.2 Hence, the facts and evidence based on the late filed documents are *prima facie* not so highly relevant as to prejudice the maintenance of the patent in suit.

2.4 Considering that

- the admission of the late filed documents B7 to B9 into the proceedings would lead to a considerable delay,

- the late submission of the documents was not justified and

- the late filed documents were *prima facie* not so

highly relevant as to be decisive in the case,

documents B7 to B9 are not admitted into the proceedings under Article 114(2) EPC in agreement with the principles developed in the case law (Case Law of the Boards of Appeal, 3rd edition 1998, VI.F.5 and 8).

*Novelty*

3. The board's communication pointed to the fact that no single customer had been identified in the appellant's submissions concerning the alleged prior use of the products identified in documents A1 and A2. In this respect, verifiable facts were missing on which an order to take evidence by hearing witnesses offered for this prior use could be based. In his reply, the appellant did not submit any additional facts in this regard, nor did he allege that witnesses could give evidence on individual customers. Therefore, the board sees no reason to take a different view from the opposition division which had concluded that the prior use had not been proven.

*Closest prior art document*

4. During the oral proceedings the appellant gave no further arguments regarding B1 to B5. Since, as the appellant admitted, there is no link between documents B2 and B3, since the pH values and the concentration of ammonium chloride of the final composition cannot be derived from these documents and since the relationship between the compositions indicated in B1 to B3 (which are dated 1972) and the invoices according to B4 and B5 (dated 1983) is not evidenced, the alleged public prior use of the compositions in question has not been

proven. Therefore, the prior use based on these documents cannot be taken into account for assessing the presence of an inventive step.

4.1 The patent in suit concerns a hair dye composition a comprising a colour lotion and an oxidizer component. Such compositions are known from the prior art, in particular D2 and D7.

In connection with the choice of the closest prior art, the arguments of the appellant started from D7 whilst the respondent and the decision under appeal referred to D2.

4.1.1 D2 describes a hair dye composition comprising, in addition to a colour and other components, an agent which favourably influences the combing and dyeing of the hair, such as aliphatic polyoxy compounds, and a buffer mixture comprising an alkanolamine having a low carbon chain or the corresponding salt thereof with ammonium ions (claim 1). The composition may contain aromatic amines or aminophenols and have a pH value of 7 to 9 (claim 2). In Example 2, 69 parts of a component containing p-toluylene diamine sulfate and resorcinol is mixed with 931 parts of a cellulose ether slime containing 5% by weight of triethanol amine, 3.3% by weight of ammonium chloride and 2.2% by weight of pentaerythrite. The pH value of the composition is 8.6. The composition is developed with an oxidizing agent in the usual manner as described in Example 1, and provides evenly dyed hair without any pretreatment.

By the use of triethanol amine together with ammonium ions a buffer system is achieved by which the low pH value of the compositions can easily be adjusted

(page 2, lines 50 to 53). The low pH value reduces hair damage and improves the gloss and strength of the hair (page 2, lines 53 to 57). As a further advantage, the hair can, without any pretreatment, be evenly dyed to a lighter tone than the natural colour (page 2, lines 13 to 16).

4.1.2 D7 describes a hair colourant composition having a pH value of 8 to 10 comprising a carrier and a mixture of dyestuffs comprising a 1,2- or 1,3-diaminobenzene substituted in the positions para to the amino groups by identical substituents selected from the group consisting of $C_1$ to $C_3$ alkyl groups and halogen atoms and 2,5-diamino toluene or a salt thereof in a molar ratio of less than 1:1 (claim 1). Resorcinol may also be present (column 1, lines 46 to 60). According to Example 5, hair dye compositions are prepared by adding specified amounts of dyestuff to a base of i) 50 g of an aqueous solution containing 5 g of an ammonia solution (25%) and 1 g ammonium phosphate and ii) 50 g hydrogen peroxide (6% solution).

4.2 The closest prior art for the purpose of assessing inventive step is that which corresponds to a purpose or technical effect similar to the invention requiring the minimum of structural and functional modifications, in agreement with established jurisprudence (Case Law of the Boards of Appeal of the European Patent Office, 3rd edition 1998, I.D.3.1).

4.3 The patent in suit aims at compositions having an excellent dyeing effect even at a low pH value without damage to hair or skin (page 2, lines 34 to 36). D7 concerns a new class of dyestuffs in general (column 1, lines 5 to 7), which may have a pH value as high as 10

(claim 1). According to D2, an improvement in gloss, strength and brightness of the hair is envisaged by using a pH value of 7 to 9 (page 2, lines 50 to 57). Furthermore, whereas in D2 a bi-liquid type composition as now being claimed is described, as had been accepted by the parties and in the decision under appeal, in D7 such is not the case. In addition, only D2 mentions ammonium chloride while in D7 ammonium phosphate is used.

4.4 It follows from the above analysis that D2 is more closely related and requires less structural and functional modifications to arrive at the subject-matter now being claimed than D7, so that D2 is regarded as the closest state of the art.

*Problem and solution*

5. Although D2 provides a bi-liquid hair dye composition which is kind to the hair and provides gloss, strength and brightness, a better dyeing effect is still desirable.

5.1 The problem to be solved may therefore be seen in providing a hair dye composition which shows an improved dyeing effect without damage to the hair, in agreement with page 2, lines 34 to 36, of the patent in suit.

5.2 According to the patent in suit this problem is solved by incorporating ammonia in combination with ammonium chloride or ammonium nitrate in the colour lotion component of a bi-liquid type hair dye composition, as defined in claim 1.

5.3 The appellant contested that the above-defined problem was effectively solved by the claimed subject-matter.

5.3.1 In the patent in suit, the composition of Example M contains ammonium nitrate and shows an L value (dyeing degree) of 13.1. In Example N the composition contains ammonium chloride and has an L-value of 14.0. In Examples M and N, the combing force, which was accepted as an indication of hair damage, is 200±20 and 200±40 g, respectively. In comparative Example L the same composition is used, however without said ammonium salts; the L value is 23.2, the combing force 310±50 g. In all examples the pH of the composition's dye component is 9. Whilst lower L-values indicate darker and deeper colours and thus a better dyeing degree, lower combing forces indicate less hair damage. Therefore, the examples of the patent in suit show an improvement in dyeing degree and combing force when compositions according to the claimed subject-matter are applied.

5.3.2 The respondent's additional tests filed in a letter dated 7 August 1991, show a product of the invention containing ammonia and having a pH value of 9.4. In comparative Example 1 an identical amount of triethanol amine instead of ammonia is used at a pH of 8.5 while all other features are held constant. The additional invention example shows an L-value of 13.0 and a combing force of 200±10 g whilst comparative Example 1 shows an L-value of 22.3 at the same combing force. In spite of the higher pH in the additional invention example, the combing force is the same. Furthermore, a comparison of Example N of the patent in suit (pH 9.0, L-value degree 14.0) with the additional invention example (pH 9.4, L-value 13.0), which have the same

composition except for a pH difference of 0.4, shows only a slight improvement in dyeing degree of 14.0 to 13.0. Example N compared with additional comparative Example 1 (pH 8.5, L-value 22.3), shows a difference in pH of 0.5, whereas the L-value is reduced from 22.3 to 14.0. Therefore, the considerable improvement in dyeing degree of the additional invention example in relation to the additional comparative Example 1 cannot be attributed to a difference in pH alone, but is also due to the use of ammonia instead of triethanol amine. Therefore, it can be concluded that compositions according to present claim 1 result in an improved dyeing degree without damaging the hair.

5.4 In view of this, and since no evidence has been presented to show anything to the contrary, the board comes to the conclusion that the above-defined problem is effectively solved by the required combination of features.

*Inventive step*

6. It remains to be decided whether the claimed subject-matter is obvious having regard to the documents on file.

6.1 D2 teaches to use an alkanol amine or its salts for adjusting the pH value within a range of 7.0 to 9.0. Although free ammonia can be used to provide ammonium ions if salts of alkanol amines are present (page 2, lines 31 to 34) there is no hint in D2 to use a combination of ammonia with ammonium chloride or

ammonium nitrate in order to arrive at an improved dyeing effect without damage to the hair. Therefore, the claimed subject-matter is not made obvious by D2 alone.

6.2 None of the other cited documents takes the claimed system for improving the dyeing degree into consideration so that a combination of one or more of these documents with D2 does not render the claimed subject matter obvious.

6.2.1 As explained above (point 4.1.2), D7 only mentions ammonium phosphate without any hint to ammonium nitrate or ammonium chloride or their effect on the dyeing degree and hair damage. Thus, the skilled person has no incentive from D7 to modify D2 in the direction as claimed.

6.2.2 In D1 a liquid/solid bi-component hair dye composition is disclosed which solid component may include an ammonium salt in order to reduce the temperature of the composition upon mixing (claims 1 and 2). In Example 5 a hair dye composition is described which includes a liquid colour lotion component containing ammonia and a solid oxidizer component containing ammonium chloride. There is no suggestion in D1 to add the ammonium chloride to the first component and to replace the solid oxidizer component by a liquid in order to improve the dyeing effect and reduce hair damage.

6.2.3 D4 relates to general aspects of hair dyeing, in particular under mild buffer conditions, without giving any suggestion in the direction of the present components and their relation to the dyeing degree.

6.2.4 D8 deals with the determination of pH and buffer systems in general. It bears no relation to hair dyeing compositions.

6.3 Therefore, starting from D2 as the closest prior art document, the claimed subject-matter is inventive.

7. Also if D7 was considered as the closest prior art document, no other result would be obtained.

7.1 D7 aims at a new hair dyestuff. The problem to be solved starting from D7 may, in agreement with the patent specification, also be seen in providing a hair dye composition which shows an improved dyeing degree without damaging the hair or skin.

7.1.1 In the respondent's test report of 7 August 1991, the product of comparative Example 3 contains ammonium phosphate, so that the effect of ammonium phosphate can be compared with that of ammonium chloride (additional invention example). The composition of comparative Example 3 has an L-value of 16.0 and a combing force of 330±50 at a pH of 9.9, whereas the additional invention example has an L-value of 13.0 and a combing force of 200±10 at a pH of 9.4. Since it is accepted that a high pH value damages the hair and a lower pH value results in an inferior dyeing effect, it can be concluded that the additional invention example has a much better dyeing degree than comparative Example 3. Considering the difference in pH it can further be accepted that the combing force is also improved.

In the light of the above-cited examples, an equivalence of the ammonium salts cannot be assumed. This is confirmed by the examples in the application as

originally filed, where various ammonium salts are compared under the same experimental conditions. It can be seen that ammonium nitrate and ammonium chloride give a better dyeing degree than a number of other ammonium salts. The appellant has not brought forward any evidence to the contrary.

7.1.2 As a consequence, the board is satisfied that the above-defined technical problem is effectively solved.

7.2 According to the teaching of D7, certain colourants are used for new hair dyestuffs, possibly in the presence of other specific components (column 1, lines 46 to 60). D7 contains no specific teaching regarding the ammonium salts that may be used, because in all examples ammonium phosphate is present. Since there is no indication to replace this compound by either ammonium chloride or nitrate in order to achieve an improved dyeing degree and since no equivalence between these ammonium salts can be assumed, D7 alone does not render the claimed subject-matter obvious.

7.3 Since D2 does not make any distinction between the different ammonium salts, and in the examples ammonium tartrate, ammonium phosphate as well as ammonium chloride are used, D2 does not give any indication that, by using ammonium chloride or ammonium nitrate together with ammonia, an improvement in dyeing degree might be achieved.

7.4 The other cited documents are even more remote as they do not relate to the above-defined technical problem so that they provide even less of an incentive to modify the teaching of D7 in the direction of the claimed solution (see point 6.2 above).

8. Hence, the solution of the technical problem according to claim 1 does not arise in an obvious way from the cited documents so that the subject matter of claim 1 involves an inventive step.

9. The same considerations apply to independent claim 2, which comprises the same technical features as claim 1, expect for the presence of a dyestuff.

## Order

## For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Eickhoff R. Teschemacher