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**D E C I S I O N**  
**of 1 March 2006**

**Case Number:** T 0210/00 - 3.3.07

**Application Number:** 93921577.8

**Publication Number:** 0660696

**IPC:** A61K 7/00

**Language of the proceedings:** EN

**Title of invention:**

Lipsticks

**Patentee:**

THE PROCTER & GAMBLE COMPANY

**Opponent:**

L'OREAL

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54, 56, 84, 114(2), 123(2)

**Keyword:**

"Late filed grounds of appeal against the patent as maintained by the opposition division - objections under Articles 84 and 123(2) EPC - not admitted"

"Novelty (yes)"

"Inventive step (yes) - problem and solution"

**Decisions cited:**

T 0219/83, T 0154/90, T 0951/91

**Catchword:**

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Case Number: T 0210/00 - 3.3.07

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.07  
of 1 March 2006

**Appellant:**  
(Opponent)

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**Decision under appeal:**

Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
23 December 1999 concerning maintenance of  
European patent No. 0660696 in amended form.

**Composition of the Board:**

**Chairman:** S. Perryman  
**Members:** B. Struif  
B. ter Laan

## Summary of Facts and Submissions

- I. The mention of the grant of European patent No. 0 660 696 with respect to European patent application No. 93 921 577.8 filed on 15 September 1993 and claiming priorities of 21 September 1992 (US 947 692), 21 May 1993 (US 66 351) and 7 September 1993 (US 115 093) was published on 8 January 1997. The granted patent was based on sixteen claims.
- II. A notice of opposition was filed against the granted patent, in which the revocation of the patent in its entirety was requested on the grounds of Article 100(a) EPC with respect to lack of novelty and lack of an inventive step. After the expiry of the opposition term, the opponent raised an opposition ground under Article 100(b) EPC.

During the opposition proceedings the following documents were *inter alia* submitted:

D4: EP-A-0 524 892  
D21: EP-A-0 534 823  
D22: Declaration 1 of P. Arnaud  
D23: Declaration 2 of J.-T. Simonnet  
D24: Declaration 3 of P. Hallegot

- III. In an interlocutory decision posted on 23 December 1999, the opposition division found that the patent could be maintained in amended form on the basis of a set of 16 claims submitted as the main request during the oral proceedings before the opposition division. Independent Claims 1 and 14 to 16 read as follows:

"1. A lipstick composition comprising:

(a) from 5% to 90%, preferably 10% to 30%, by weight, wax;

(b) from 1% to 90%, preferably 10% to 80%, by weight, of an emollient component comprising from 0% to 100%, preferably 5% to 90%, by weight, of oil which is liquid at ambient temperature;

(c) from 0.1% to 80%, preferably 3% to 75%, and more preferably from 10% to 65%, by weight, of a **thermodynamically stable** association structure **selected from the group consisting of reverse micelles, lyotropic liquid crystals and mixtures thereof, said association structure** consisting essentially of:

(1) from 3% to 96%, preferably 10 to 80%, by weight, of polar solvent preferably selected from the group consisting of water, glycerine, propylene glycol, butylene glycol, panthenol and mixtures thereof; and

(2) from 4% to 97%, preferably 30 to 80%, by weight, of surfactant having a Krafft point at or below about ambient temperature preferably selected from the group consisting of amphoteric surfactants, anionic surfactants, cationic surfactants, nonionic surfactants and mixtures thereof; **in which said polar solvent does not separate from said association structure when subjected to sufficient ultracentrifugation to induce the formation of observable phase boundaries over a period of time;** and

(d) from 0% to 35%, preferably 1% to 20%, on an anhydrous basis, color."

"14. A lipstick composition comprising:

(a) from 5% to 90%, preferably 10% to 30%, by weight, wax;

(b) from 1% to 90%, preferably 10% to 80%, by weight, of an emollient component comprising from 0% to 100%, preferably 5% to 90%, by weight, of oil which is liquid at ambient temperature;

(c) from 0.1% to 80%, preferably 3% to 75%, and more preferably from 10% to 65% by weight, of **a thermodynamically stable association structure selected from the group consisting of reverse micelles, lyotropic liquid crystals and mixtures thereof, in which said polar solvent does not separate from said association structure when subjected to sufficient ultracentrifugation to induce the formation of observable phase boundaries over a period of time; said association structure** consisting essentially of:

(1) from 0.1 to 30%, by weight, of polar solvent preferably selected from the group consisting of water, glycerine, propylene glycol, butylene glycol, panthenol and mixtures thereof; and

(2) from 5% to 20%, by weight, of surfactant wherein said surfactant is a mixture having from 50% to 75% of the mixture being surfactants which have a Krafft point at or below ambient temperature and form association structures at ambient temperature and from 25% to 50% of the mixture being surfactants which are coupling agents;

(d) from 0% to 35%, preferably 1% to 20%, on an anhydrous basis, color."

"15. A process for incorporating dry pigments into a lipstick composition comprising the steps of:

- (a) preparing a mixture consisting essentially of:
  - (1) a polar solvent; and
  - (2) a surfactant selected from the group consisting of amphoteric surfactants, cationic surfactants, anionic surfactants, nonionic surfactants having a Krafft point at or below about ambient temperature and mixtures thereof;
- (b) stirring said mixture until **a thermodynamically stable** association structure forms, the **association structure being selected from the group consisting of reverse micelles, lyotropic liquid crystals and mixtures thereof, in which said polar solvent does not separate from said association structure when subjected to sufficient ultracentrifugation to induce the formation of observable phase boundaries over a period of time;**
- (c) adding and mixing dry pigments until achieving a homogeneous mixture;
- (d) milling said mixture until uniform particle size is achieved; and
- (e) adding and mixing the mixture of **(d)** to the remaining lipstick ingredients with mixing until a homogeneous mixture is achieved."

"16. A lipstick composition comprising:

- (a) from 0.1% to 30% polar solvent;
- (b) from 5% to 20% of a surfactant mixture consisting essentially of lecithin, PG-3 diisostearate, sorbitan oleate, cholesterol 12 hydroxystearate, and dipentaerythritol fatty acid ester, wherein from 50% to 75% of the surfactant mixture is made up of surfactants which have a Krafft point of at or below about ambient temperature and form **thermodynamically stable** association structures **selected from the group consisting of reverse micelles, lyotropic liquid crystals and mixtures thereof**, at ambient temperature and from 25% to 50% of the mixture is made up of surfactants which are coupling agents, **in which in which said polar solvent does not separate from said association structure when subjected to sufficient ultracentrifugation to induce the formation of observable phase boundaries over a period of time.**"

(Emphasis added by the board in order to indicate the amendments compared to the granted claims).

IV. The opposition division held that:

- (a) The new ground of opposition under Article 100(b) EPC filed after the expiry of opposition term was not admitted to the proceedings.
- (b) The amended claims of the main request were in compliance with the requirements of Article 123, paragraphs (2) and (3), and Article 84 EPC.

- (c) The claimed subject-matter was novel over D21 which disclosed lipstick compositions comprising a provesicular lipid phase, wax, emollient, surfactant and polar solvent. Although D21 mentioned lamellar phases, it had not been shown that the exemplified mixture of glycerol and provesicular lipid phase was present in the form of reverse micelles, lyotropic liquid crystals or mixtures thereof and fulfilled the ultracentrifugation test.

D4 disclosed a stick comprising a) a mixture of two waxes, b) a mixture of three emollient components, and c) glycerine and trioetyl phosphate. However, it had not been proven that structures shown in D22 to D24, which had been prepared according to example 2 of D4, were present as reverse micelles, lyotropic liquid crystals or mixtures thereof.

Other documents on file did not disclose lipstick compositions showing the presence of thermodynamically stable association structures as claimed either.

Therefore, the subject-matter of claim 1 was novel. The same considerations applied *mutatis mutandis* to independent claims 14 to 16.

- (d) Inventive step was considered in relation to D4 and D21, the latter document representing the closest state of the art. D21 concerned the problem of providing moisturizing agents to the



lips. According to D21, that problem was solved by a pro-vesicular lipid phase that was capable of forming vesicles when applied onto the lips and contacted with an aqueous phase; this solution was different from that of the patent in suit where the polar solvent was thermodynamically bonded within the lipstick.

D4 concerned the problem of dispersing a polar solvent, such as glycerine, in a stick composition. That problem was solved by using high turbine speed, a solution totally different from that of the patent in suit.

The other documents were considered to be less relevant than D21 and D4.

The subject-matter of claim 1 therefore involved an inventive step. The same considerations applied *mutatis mutandis* to independent claims 14 to 16.

V. On 22 February 2000, the opponent (appellant) filed a notice of appeal against the above decision, the prescribed fee being paid on the same day. In the statement setting out the grounds of appeal filed on 21 April 2000, the appellant submitted *inter alia* the following further documents:

D35: Declaration 1 of P. Arnaud dated 7 April 2000

D36: Declaration 2 of J.-T. Simonnet dated 7 April 2000

D37: Declaration 3 of P. Hallegot dated 12 April 2000

D38: Declaration 4 of M. J.-P. Lechaire dated

13 April 2000

VI. By letter of 13 August 2002 the appellant submitted yet further documents, among others:

D43: JP-A-48-103742 in its English translation

By letter of 30 January 2006, the appellant gave further arguments regarding novelty and inventive step and raised objections under Article 123(2) and 84 EPC with respect to the claims underlying the decision under appeal (main request) and the auxiliary requests then on file.

VII. By letter dated 20 November 2000, the proprietor (respondent) requested that the patent be maintained as the main request on the claims as approved by the opposition division and also filed three sets of claims as auxiliary requests. These were later replaced by five sets of claims as auxiliary requests 1 to 5 (letter of 1 February 2006).

By letter dated 7 April 2005, the respondent pointed out that there was no information on the Krafft point of a number of compounds mentioned in the declarations D35 to D38 filed by the appellant and since the respondent could not obtain those compounds without the appellant's authorisation, requested that the board ask the appellant to authorize the supply of certain compounds to the respondent.

By letter dated 24 February, the respondent submitted arguments with respect to the objections under Article 123(2) and 84 EPC raised by the appellant in his letter of 30 January 2006.

VIII. Oral proceedings were held on 1 March 2006 in the absence of the appellant, which had been announced by letter of 30 January 2006 (Rule 71(2) EPC).

IX. The appellant had in substance argued as follows:

(a) The claims of the main request included a number of features which had not been disclosed in the application as filed and were not clear, so that Articles 123, paragraph 2, and 84 EPC were not complied with. Those grounds had already been discussed before the opposition division.

(b) As regards novelty, Composition B6 according to example 2 of D21 had been prepared and tested as shown in experimental reports D35 to D38. The analysed samples showed lamellar liquid crystals which were thermodynamically stable and showed no separation of the polar solvent from the associated structure, even when subjected to ultracentrifugation. The arguments brought forward by the respondent in that respect were contradictory to the information given in the patent in suit. Hence, the composition according to D21 met all features of claim 1 of the main request so that the claimed subject-matter was not novel.

D43 disclosed lipstick compositions comprising wax, emollient and an association structure consisting of a polar solvent (glycerine) and a surfactant (glycerol dioleate) having a Krafft point at or lower than ambient temperature. Those compositions were stable at a temperature of

40-50°C for three or more months and caused no sweating. Thus, D43 disclosed all features of the claimed subject-matter as well.

- (c) As regards inventive step, since the patent in suit could only benefit from the priority date of 21 May 1993, D21 was a prepublished document according to Article 54(2) EPC.

The respondent had not shown that the claimed subject-matter provided any improved technical effect over D21. Thus, the technical problem of D21 was the same as in the patent in suit and it was solved by using amphiphilic lipids capable of forming vesicles. Since D21 described a composition comprising a lamellar phase of the liquid crystal type that fulfilled the centrifugation requirements, the present compositions were clearly suggested. A change in the amounts of the components forming the composition did not render the claimed subject-matter inventive either. Thus, the claimed subject-matter was not inventive. These considerations applied *mutatis mutandis* to independent claims 14 to 16.

X. The respondent argued in substance as follows:

- (a) The objections under Article 123(2) and 84 EPC, although referred to by article number in the appeal letter, had not been analysed or substantiated in the statement of grounds of appeal. The respondent did not agree with the

introduction of those belated grounds into the proceedings.

- (b) As regards novelty, the respondent did not maintain its request not to allow D43 into the proceedings. The whole disclosure of D43 concerned an emulsified gel structure, which was different from the thermodynamic association structure as claimed. Furthermore, the appellant had failed to show that association structures as claimed were present. Thus, D43 did not anticipate the claimed subject-matter.

The composition of D21 that the appellant had allegedly reworked was not disclosed in sufficient detail that it could be adequately reproduced. The alleged reworking did not inevitably lead to the claimed composition. The presence of an association structure as now claimed, in particular an association structure containing a surfactant having the required Krafft point, had not been shown. Therefore, the claimed subject-matter was novel.

- (c) As regards inventive step, D43 was considered to be the closest state of the art, since it also addressed the problem of stability of lipsticks which were stable for 3 or more months without sweating. The solution of that problem was to use an emulsified gel structure. The patent in suit solved the problem by using the thermodynamically stable association structure as claimed, quite different from an emulsified gel. D43 did not

provide any hint to the solution proposed by the patent in suit.

- (d) The respondent no longer argued that the first priority date of the patent in suit could validly be claimed so that D21 was a prior art document under Article 54(2) EPC. D21 aimed at releasing moisturising agents to the lips. To that end, a pro-vesicular phase formed vesicles which delivered their contents in contact with water (saliva). D21 did not concern the binding of hydrophilic materials in the lipstick composition so that the problem of sweating did not occur. There was no hint in D21 to provide a thermodynamically stable association structure within the lipstick composition itself, as now claimed. Consequently, the claimed subject-matter of the main request involved an inventive step.

XI. The appellant had requested in writing that the decision under appeal be set aside and that the European patent be revoked.

XII. The respondent requested that the appeal be dismissed and that the patent be maintained on the basis of the version underlying the decision under appeal as the main request, or, alternatively, on the basis of any one of the five sets of claims submitted as auxiliary requests 1 to 5 with letter dated 1 February 2006.

## Reasons for the Decision

1. The appeal is admissible.

### *Main request*

#### *Admissibility of objections under Articles 84 and 123(2) EPC*

2. The claims of the main request correspond to the amended version in which the patent has been maintained by the opposition division. By letter of 30 January 2006, the appellant provided detailed arguments why the amendments to the granted claims did not meet Articles 123(2) and 84 EPC.
  - 2.1 According to Article 108, last sentence, a written statement setting out the grounds of appeal must be filed within four months after the date of notification of the decision. According to established jurisprudence, the grounds of appeal should specify the legal and factual reasons on which the case for setting aside the decision is based. The arguments must be clearly and concisely presented to enable the board and the other party or parties to understand immediately why the decision is alleged to be incorrect, and on what facts the appellant bases his arguments, without first having to make investigations of their own (Case Law of the Boards of Appeal of the European Patent Office, 4th Edition 2001, VII.D.7.5.1).
  - 2.2 The notice of appeal, in addition to Articles 123(2) and 84 EPC, makes reference to Articles 54, paragraphs (1), (2) and (3), 56 and 87, paragraph (1) EPC. Thus, the notice of appeal mentions five different article

numbers which may form the legal basis for a revocation. However, the statement setting out the grounds of appeal is confined to questions of novelty and inventive step and does not address any objections under Articles 123(2) and 84 EPC. Hence, the statement setting out the grounds of appeal does not specify the actual and legal reasons in respect of Articles 123(2) and 84 EPC, why the appellant (opponent) considers the decision to maintain the patent in amended form to be incorrect. Since it is established jurisprudence that even a general reference to the written submissions before the first instance is in principle not a sufficient reasoning (Case Law, supra, VII.D.7.5.4), the mere reference by article numbers in the notice of appeal can, all the more, not be considered as sufficient. Hence, within the period stipulated in Article 108 EPC, no statement of the grounds of appeal has been put forward under Article 123(2) and 84 EPC.

- 2.2.1 From the appellant's letter of 30 January 2006, only 1 month before the oral proceedings and more than 5 years after filing the statement setting out the grounds of appeal, it appeared that the objections under Articles 123(2) and 84 EPC concerned the feature "in which said polar solvent ...period of time".

It is precisely this situation which, according to the established jurisprudence of the Boards of Appeal of the EPO, the requirement that grounds of appeal be filed, is designed to prevent (T 154/90, Reasons, point 1.2.2). Although in the decision under appeal detailed reasons were given why the amended claims met the requirements of Articles 123(2), (3) and 84 EPC (Reasons, points 3. and 4.), the appellant has not



- challenged those reasons in the statement setting out the grounds of appeal.
- 2.2.2 From the above it follows that the objections regarding Articles 123(2), (3) and 84 EPC had not been present in the statement of grounds of appeal and that the appellant's submissions of 30 January 2006 have the function to add such grounds of appeal at a late stage. Such late filed grounds of appeal may be refused in accordance with Article 114(2) EPC.
- 2.2.3 The discretionary power given to the departments of the EPO pursuant Article 114(2) EPC serves to ensure that proceedings can be concluded swiftly, in the interest of the parties, the general public and the EPO and to forestall tactical abuse. Parties have to take into account the possibility that late filed material may be disregarded and do their best to submit the facts, evidence and arguments relevant to their case as early and completely as possible (Case Law, *supra*, VI.F.3.1.3; decision T 951/91). The appellant has not given any justification why the grounds of appeal referring to objections under Article 123(2) and 84 EPC in respect of the main request were filed so late, so that tactical reasons for its late submission cannot be excluded.
- 2.2.4 Consequently, the appellant's arguments that the late filed submissions concern, in respect of the main request, mere arguments that cannot be disregarded by the board under Article 114(2) EPC, cannot be accepted. Nor does the board see any reason to take a different view from the decision under appeal with respect to those objections. Therefore, the board refuses to admit

the late filed grounds of appeal in respect of the version of the claims, in which the patent had been maintained in the decision under appeal.

### *Novelty*

3. D43 discloses an emulsified stick cosmetic composition characterized by adding a gel comprising 1 to 5% of a surfactant and 1 to 10% of polyhydric alcohol, and 1 to 50% of water to a cosmetic base containing oily ingredients as a main ingredients (claim 1). According to D43, the formation of a gel is the core feature in preparing a stable cosmetic composition (page 2, last full paragraph, last sentence and page 3, last paragraph but one and last sentence). Example 5 (pages 5 and 6), to which the appellant specifically referred, discloses a lipstick which contains liquid paraffin, solid paraffin, carnauba wax and butyl stearate as portion A, glycerol dioleate and glycerin as portion B and ion-exchanged water, lake, preservatives and perfumes as portion C. For the preparation of the lipstick, a gel made of portion B is added to portion A and portion C is blended thereto, followed by emulsification and further deaeration (example 1).

3.1 According to the patent in suit, the thermodynamically stable association structures are reverse micelles or lyotropic liquid crystals which structures are distinguishable from gels or emulsions, in which the polar solvent separates when subjected to ultracentrifugation (page 3, lines 51 to 53). Since portion B in D43 is specified to be a gel, the explicit teaching of the prior art document is contrary to the

concept of providing a thermodynamically stable association structure as claimed.

3.2 Apart from that, there is no evidence on file that portion B in the lipstick composition prepared according to example 5 of D43 is present in the form of a thermodynamically stable association structure. That the known lipstick composition is stable over a longer period of time without sweating when subjected to an accelerated temperature test (D43, page 3, lines 8 to 10) can by itself not serve as a proof that portion B in the lipstick composition has a thermodynamically stable association structure as claimed. The onus of proof in that respect lies with the opponent (appellant), which he has not discharged (T 219/83, OJ EPO 1986, 211). Hence, the opponent has not shown that the claimed subject-matter is anticipated by D43. As the requirements regarding the association structure are not fulfilled by D43 and already for that reason novelty has to be recognized, the question whether glycerol dioleate has a Krafft point as claimed can be left undecided.

3.3 D21 discloses a cosmetic treatment process according to which an anhydrous cosmetic make-up composition comprising a fatty phase is applied to the skin or the labial mucosa, wherein the anhydrous cosmetic composition is prepared by mixing the fatty phase with a provesicular lipid phase containing at least an amphiphilic lipid capable of forming vesicles by contact with an aqueous phase and wherein the cosmetic composition is in contact with an aqueous phase when it is applied (claim 1).

3.3.1 Among the water-soluble active agents preferably those are chosen which enable anhydrous lamellar phases to be obtained by mixing with the provesicular lipid phase, such as glycerol, sorbitol and other polyols of related structure (page 5, lines 49 to 51).

3.3.2 Example 2 of D21 discloses the preparation of a composition comprising a base B which is prepared by mixing polybutylene, lanolin oil, octoxyglyceryl behenate, stearyl heptanoate, jojoba oil, castor oil, butylated hydroxytoluene and butylated hydroxyanisol (second table, page 10). The provesicular phase (1) comprises a nonionic amphiphilic triglyceryl hexadecyl ether (formula V, page 7), cholesterol and dicetyl phosphate (page 10, lines 35 to 42). Glycerol, which is a water-soluble active agent, is optionally added as well by premixing with the preovesicular lipid phase (1) (page 10, lines 54 and 55). For preparing composition B6, base B, microcrystalline wax, polyethylene wax and a mixture of equal weights of glycerol and of the before-mentioned provesicular liquid phase (1) are mixed (table page 11).

3.4 From example 2 of D21 it cannot be derived that the lipstick thus obtained comprises the required association structure. However, the appellant argued that when reproducing example 2, composition B6 of D21, such an association structure was formed consisting of the provesicular phase and glycerol. This was, according to the appellant, supported by experimental reports D35 to D38.

3.4.1 In D21, there is no indication for any Krafft point of the surfactants, in particular not for hexyldecyl

- trigyceryl ether which is used in the preparation of the provesicular lipid phase (1) mentioned above (point 3.3.2). Also D36, in which the reproduction of provesicular lipid phase (1) is described, does not indicate the Krafft point of that surfactant. The Krafft point of the surfactant is a feature of all independent claims and it was up to the appellant to show that all the requirements of the claims are met.
- 3.4.2 According to the patent in suit (page 5, lines 36 to 40) the definition of the Krafft point was well known in the art and one of ordinary skill in the art could determine a surfactant's Krafft point. Reference is made to Ekwall., P., "Composition, Properties and Structure of Liquid Crystalline Phases in Systems of Amphiphilic Compounds" Advances in Liquid Crystals Vol. I, Chapter I, p.81.
- 3.4.3 The respondent had pointed out that there was no information on the Krafft point of triglyceryl hexadecyl ether and dicetyl phosphate mentioned in the declarations filed by the appellant. The supplier of those compounds, Chimex, supplied exclusively for L'Oréal. As the respondent could not obtain those compounds without the appellant's authorisation, he required the board to ask the appellant to authorize the supply of certain compounds to the respondent for testing purposes (see also communication of the board, point VI).
- 3.4.4 During the written proceedings, the appellant had only argued that the experimental reports D35 to D38 followed exactly composition B6 of table II of D21 and showed the presence of an association structure

consisting of lyotropic liquid crystals showing no separation of the polar solvent from the association structure when subjected to ultracentrifugation. The Krafft point of triglyceryl hexadecyl ether and dicetyl phosphate was not mentioned. In the oral proceedings the respondent declared that they had not obtained L'Oréal's authorisation for buying samples from the supplier.

3.4.5 The board has no power to order a party to afford another party access to a chemical substance. However, the board must be satisfied that there is reliable evidence supporting any case being put forward, and if the respondent is not afforded a reasonable opportunity to verify experimental results for itself, this may be taken into account when the board assesses the evidence.

3.4.6 From the above it follows that the appellant has not discharged his onus of proof that the surfactant used in composition B6 of D21 had a Krafft point at or below ambient temperature, although this subject had been addressed by the respondent and in the board's communication. In addition, the respondent was not afforded a reasonable opportunity to verify whether the surfactant triglyceryl hexadecyl ether used in the appellant's experimental reports D35 to D38, has the required Krafft point. Hence, the appellant's behaviour casts doubts on the reliability of the evidence provided, in particular whether the Krafft point of triglyceryl hexadecyl ether meets the claimed requirement.

3.4.7 Consequently, all the claimed features cannot directly and unambiguously be derived from the reproduced composition B6 of D21 (D35 to D38).

3.5 Hence, the appellant failed to prove that the claimed subject-matter lacks novelty over the cited prior art.

*Inventive step*

*Closest prior art document*

4. The patent in suit concerns lipsticks. Such lipsticks are known from the cited prior art, in particular D21, which the appellant and the opposition division regarded as the closest prior art document, and from D43, which was the starting point of the respondent.

4.1 D21 concerns the problem of introducing cosmetic and/or pharmaceutical active agents, in particular water soluble active agents, into anhydrous make-up compositions (page 2, lines 20, 26 and 27). For solving that problem, D21 proposes a lipstick containing a provesicular lipid phase, which is capable of forming vesicles in the presence of water (see also Reasons, point 3.3 above). This property is retained when the provesicular phase is mixed with the fatty phase used for the manufacture of anhydrous cosmetic compositions, which contains organic and/or mineral oils, fats, waxes and surfactants. By contact with water vesicles of satisfactory quality are formed. Those vesicles retain their capacity to encapsulate hydrophilic and/or lipophilic active agents and under these conditions the efficacy of active agents introduced into the anhydrous composition is markedly improved (D21, page 2, line 51 to page 3, line 2).

4.2 According to D43, it is difficult to add water directly to conventional ingredients of lipsticks, since problems of discoloration, softening, breakage, sweating, and a poor molding process arise (page 2, last complete paragraph). However, stability, in particular in respect of frosting and sweating, can be remarkably improved (three or more months; page 3, lines 7 to 9) by the action of a gel previously formed from a surfactant and a polyhydric alcohol (page 3, last two paragraphs; see also Reasons, point 3. above).

4.3 According to the patent in suit, in conventional lipsticks the moisturizers/polar solvents may separate from the lipstick causing it to look wet and messy. This is unacceptable to the consumer. Thus, a need existed to provide a lipstick that thermodynamically binds the moisturizers/polar solvents (discontinuous phase) and delivers them in a predominantly nonpolar lipophilic matrix (continuous phase). Further, there is a need to provide a means of thermodynamically binding the moisturizers/polar solvents in a way which will allow incorporation of high levels of the moisturizing agents while exhibiting overall excellent stability and providing good feel properties (page 2, lines 15 to 19).

4.4 According to established jurisprudence, the closest prior art for the purpose of assessing inventive step is generally that which corresponds to a purpose or technical effect similar to that of the invention and requiring the minimum of structural and functional modifications (Case Law, *supra*, I.D.3.1).



4.5 Although D43 discloses the formation of a gel and D21 discloses lamellar structures (page 5, lines 49 and 50), both documents do not address the thermodynamically stable association structure comprising a surfactant having a specified Krafft point as claimed. Hence, they require similar modifications with respect to the claimed subject-matter. Whilst D43 aims at a lipstick composition which is stable against sweating and frosting, D21 concerns the introduction of cosmetic and/or pharmaceutical active agents, in particular water soluble active agents, into anhydrous make-up compositions in order to form vesicles which encapsulate the hydrophilic active agents. Thus, D43 addresses the stability of the lipstick composition itself which is more closely related to the problem of syneresis addressed in the patent in suit than the formation of vesicles described in D21.

Therefore, D43 is the most appropriate starting point for evaluating inventive step.

*Problem and solution*

5. According to the patent in suit, the polar solvent does not separate from the association structure even when ultracentrifuged at sufficiently high centrifugal forces (preferably within the range of from about 20,000 rpm to about 60,000 rpm for from about one hour to about sixteen hours utilizing a Beckman L8-80 centrifuge equipped with a SW60Ti Rotor or by applying about 300,000\*g for about one hour) to induce the formation of observable phase boundaries over a period of time (page 10, lines 8 to 12). Thus, under such high mechanical forces the lipstick compositions as claimed should be stable.

- 5.1 According to the patent in suit, adding the association structures as claimed provides a system which is stable on storage, because the association structures of the surfactant and polar solvent are thermodynamically stable and adsorb on the wax. The association structures can tolerate wide ranges of temperatures, e.g. from ambient temperature to about 100°C. The polar solvent is bound within multilayers and does not separate, even when ultracentrifuged (page 4, lines 16 to 21). However, polar solvents in gels as taught in D43 separate when subjected to ultracentrifugation (patent in suit, page 3, lines 51 and 52).
- 5.2 Although the known lipstick compositions have a good stability against sweating at elevated temperatures (40 to 50°C), those gel systems are not thermodynamically stable, since polar solvents separate when subjected to ultracentrifugation in line with the patent in suit. Furthermore, the claimed lipstick compositions are stable at higher temperatures up to 100°C. Hence, although no direct comparative results between the claimed lipstick compositions and those of D43 are on file, it is evident from the patent in suit that the claimed subject-matter provides a higher stability over gel systems of D43.
- 5.3 Thus, the problem to be solved over D43 can be seen in providing a lipstick composition which has an improved stability on storage and can tolerate a wide range of temperatures, e.g. from ambient temperature to 100°C, in line with the patent in suit (page 4, lines 16 to 21).

- 5.4 According to the patent in suit, this problem is solved by incorporating a thermodynamically stable association structure in the lipstick composition which does not separate upon ultracentrifugation as defined in claim 1.

*Obviousness*

6. It remains to be decided whether the claimed subject-matter is obvious having regard to the documents on file.
- 6.1 D43 focuses on the action of a gel (claim 1, page 3, last two paragraphs), in order to provide stability against sweating and frosting. As discussed above, the use of a gel goes in a direction opposite to the claimed subject-matter, according to which a thermodynamically stable association structure is used that does not separate when subjected to ultracentrifugation. Thus, D43 does not provide any incentive for the solution of the present problem.
- 6.2 D21 does not address the stability problem in the lipstick composition (section 3. above) and hence does not suggest how this problem could be solved. The provision of vesicles from a provesicular lipid phase described in D21 does not provide any incentive to bond the polar solvent in the lipstick thermodynamically. Consequently, D21 does not suggest the use of a thermodynamically stable association structure consisting of reverse micelles or lyotropic liquid crystals, in which the polar solvent does not separate when subjected to ultracentrifugation. Hence, the skilled person gets no incentive from D21 to modify the teaching of D43 in the direction as claimed.

- 6.3 The other documents cited during the proceedings are not more relevant than those analysed above. None of them relates to lipstick compositions having a thermodynamically stable association structure which does not show separation of the polar solvent from the lipstick when subjected to ultracentrifugation. Hence, the subject-matter of claim 1 is inventive when taking D43 as the starting point.
- 6.4 No other conclusion would be reached if one started from D21 as the closest prior art document. In that case, the problem to be solved may be seen in providing a highly stable lipstick composition. Since D21 does not address that problem, it also does not provide any incentive for the claimed solution (see section 6.2 above). Since D43 teaches the use of a gel, there is no incentive in D43 for modifying the lipstick compositions of D21 in the direction of a thermodynamically stable association structure as claimed. Thus, the subject-matter of claim 1 is not made obvious when starting from D21 either.
- 6.5 Since the independent claims 14 to 16 include the same distinguishing features over D21 and D43 as discussed above with respect to claim 1 and since the appellant has not submitted any arguments why the subject-matter of claims 14 to 16 should be assessed differently from claim 1, the arguments given with respect to claim 1 (sections 4, 5 and 6.1 to 6.4 above) apply *mutatis mutandis* to claims 14 to 16 as well.
- 6.6 Therefore, the claimed subject-matter is inventive (Article 56 EPC).

*Priority*

7. D21 has been published on 31 March 1993 between the first and second claimed priority dates of the patent in suit. In the oral proceeding the respondent did no longer argue that the claimed subject-matter could be derived from the first priority document. Since the board has come to the conclusion that the claimed subject-matter is novel and inventive also when taking into consideration D21 as state of the art under Article 54(2) EPC (see sections 5. and 6. above), there is no need to consider the validity of the priority in more detail.

**Order**

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

The appeal is dismissed

The Registrar

The Chairman

C. Eickhoff

S. Perryman