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**D E C I S I O N**  
**of 23 September 2004**

**Case Number:** T 0737/02 - 3.3.2

**Application Number:** 97901057.6

**Publication Number:** 0877594

**IPC:** A61K 7/48

**Language of the proceedings:** EN

**Title of invention:**  
Personal care composition

**Patentee:**  
UNILEVER PLC, et al

**Opponent:**  
Henkel KGaA

**Headword:**  
Personal care composition/UNILEVER PLC, et al

**Relevant legal provisions:**  
EPC Art. 56

**Keyword:**  
"Main, first to fourth auxiliary requests - inventive step -  
no: claimed combination of features obvious over a prior art  
example in combination with a preferred embodiment of the  
description"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 0737/02 - 3.3.2

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.2  
of 23 September 2004

**Appellant:** Henkel KGaA  
(Opponent) VTP (Patente)  
D-40191 Düsseldorf (DE)

**Representative:** -

**Respondent:** UNILEVER PLC  
(Proprietor of the patent) Unilever House,  
Blackfriars  
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**Representative:** Elliott, Peter William  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 14 May 2002  
rejecting the opposition filed against European  
patent No. 0877594 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** U. Oswald  
**Members:** J. Riolo  
J. H. P. Willems

## Summary of Facts and Submissions

- I. European patent No. 0 877 594 based on international application No. PCT/EP97/00199 was granted on the basis of 8 claims.

Independent claim 1 as granted read as follows:

1. A personal washing composition in the form of an aqueous liquid comprising

i) a lipid composition comprising two components D and E, where D is a molecule having one C<sub>8-24</sub> hydrocarbon chain and a hydrophilic head group and E is a material which comprises at least one of a compound selected from 3 $\beta$ -sterol; squalane; squalene; saponins or saponogenins of the plant steroid or triterpenoid type; di and tri terpenes such as phytol, retinol and amyirin; and mixtures thereof; wherein D and E are respectively present at levels within the range 0.1 to 10wt% and 0.2 to 12wt% based on the total composition;

ii) 1-45 wt% of a surface active agent selected from anionic, nonionic, cationic, zwitterionic, amphoteric surface active agents, soap and mixtures thereof; and  
iii) a deposition aid; and the composition is

substantially free of a molecule having at least two hydrocarbon chains and a polar head group which satisfies the relationship

$$0.5 < V/a_0 I_c \leq 1.0;$$

where

V is the volume of the hydrocarbon chains

I<sub>c</sub> is the critical length of the hydrocarbon chains and

a<sub>0</sub> is the optimum area of the polar head group.

II. Notice of opposition was filed against the granted patent by the appellant opponent (opponent).

The patent was opposed under Article 100(a) EPC for lack of novelty and lack of inventive step.

The following documents were *inter alia* cited during the proceedings:

(1) WO-A-9617592

(2) WO-A-9625144

(4) EP-A-366070

(5) US-A-4708813

(10) US-A-5002680

III. The decision of the Opposition Division established that the patent was to be maintained as granted under Article 102(2) EPC.

In its decision, the Opposition Division took the view that the patent as granted met the requirements of novelty and inventive step in accordance with Articles 52(1), 54 and 56 EPC.

As regards novelty, the Opposition Division was of the opinion that the intermediate documents (1) and (2) did not anticipate the subject-matter of the patent in suit.

In its view, none of the compositions disclosed in the examples of document (1) was fell under the claims of the contested patent, which was moreover the result of several selections within the broad disclosure of said document.

The same arguments applied with respect to document (2).

Accordingly, compliance with Article 54(3) and (4) EPC was acknowledged by the Opposition Division.

The Opposition Division defined the problem to be solved vis-à-vis the closest prior art, namely citation (4), which concerned a bathing composition comprising an oily component, nonionic surfactant and cationic polymer, as the provision of a rinse-off personal washing composition which deposits enough of the lipids to repair the stratum corneum, whilst still cleansing the skin and providing a high lather volume.

The Opposition Division considered that there was nothing in the available prior art that would suggest to the skilled person that this problem could be solved by the specific combination of the two lipid groups D and E of claim 1 of the contested patent. Its conclusion was that the proposed solution to the problem was not obvious and deserved the acknowledgment of an inventive step.

IV. The appellant (opponent) lodged an appeal against said decision.

It filed document (10) with its grounds of appeal.

V. The respondents (patentees) filed auxiliary requests 1 to 4 with their letter of reply dated 27 March 2003. These requests correspond to those filed before the Opposition Division on 22 March 2002 during opposition proceedings.

Independent claim 1 of auxiliary request 1 corresponds to claim 1 of the main request with the specification that the personal wash compositions are "rinse-off" compositions as disclosed on page 12, lines 19 to 23 of the patent application as originally filed.

Independent claim 1 of auxiliary request 2 corresponds to claim 1 of auxiliary request 1 except that in the former the definition of component E is limited to 3 $\beta$ -sterol.

Independent claim 1 of auxiliary request 3 corresponds to claim 1 of auxiliary request 1 including the requirement for 0,5 to 15 wt% of a cosurfactant according to the formula "R<sup>1</sup>-[-CO-NH(CH<sub>2</sub>)<sub>m</sub>-]<sub>n</sub>-N<sup>+</sup>(-X-Y/-R<sup>2</sup>/-R<sup>3</sup>)" given on page 8, lines 16 to 25 of the patent application as originally filed.

Independent claim 1 of auxiliary request 4 corresponds to claim 1 of auxiliary request 1 except that in the former the surfactant is limited to an anionic surfactant.

No written submission as to the merits of the subject-matter of these requests with respect to inventive step was made either during opposition or appeal proceedings.

- VI. Oral proceedings were held before the Board on 23 September 2004.
- VII. The appellant raised no objection under Articles 123(2) and (3), 84 and 54 EPC with respect to auxiliary requests 1 to 4.

It however maintained its novelty objection under Article 54(3) and (4) EPC as to the set of claims as granted in the light of the interfering documents (1) and (2).

It further submitted that none of the requests on file fulfilled the requirements of inventive step vis-à-vis the available prior art documents.

- VIII. The respondents maintained that the composition of claim 1 of the set of claims as granted was novel vis-à-vis documents (1) and (2) for the reasons set out in the decision of the Opposition Division. They further argued that the appellant's comments regarding novelty were constructed around what the skilled person would or could do based on the teaching of the documents, which was actually an inventive step argument.

As to inventive step, they mainly argued that the claimed composition was inventive because of the specific combination of lipids D and E together with the absence of a ceramide- type molecule fulfilling the particular relationship given in claim 1; a combination which, in their view, was not made obvious by the disclosure of any of the available prior art documents taken alone or in combination.

IX. The appellant requested that the decision under appeal be set aside and that European patent No. 0 877 594 be revoked.

The respondents requested that the appeal be dismissed and that the patent be maintained as granted, alternatively that the patent be maintained in amended form on the basis of auxiliary requests 1 to 4 filed with their letter of 27 March 2003.

### **Reasons for the Decision**

1. The appeal is admissible.

2. *Main request*

2.1 Novelty

The Board agrees with the Opposition Division's arguments and conclusions given under 2.2 of its decision as to the novelty of the main request.

Accordingly, the subject-matter of this request is considered to be novel vis-à-vis documents (1) and (2) as it represents a selection within said disclosures.

Having regard to the Board's conclusions on inventive step (see below, point 2.2), there is no need to go into more detail.



## 2.2 Inventive step

2.2.1 The patent provides for a composition in the form of an aqueous liquid, which may be formulated as products for washing the skin, comprising:

(i) a lipid composition comprising two components D and E, where D is a molecule having one C<sub>8-24</sub> hydrocarbon chain and a hydrophilic head group and E is a material which comprises at least one of a compound selected from 3 $\beta$ -sterol; squalane; squalene; saponins or sapogenins of the plant steroid or triterpenoid type; di and tri terpenes such as phytol, retinol and amyirin; and mixtures thereof; wherein D and E are respectively present at levels within the range 0.1 to 10wt% and 0.2 to 12wt% based on the total composition;

(ii) 1-45 wt% of a surface active agent selected from anionic, nonionic, cationic, zwitterionic, amphoteric surface active agents, soap and mixtures thereof; and

(iii) a deposition aid;

and the composition is substantially free of a molecule having at least two hydrocarbon chains and a polar head group which satisfies the relationship

$$0.5 < V/a_0 I_c \leq 1.0;$$

where

V is the volume of the hydrocarbon chains

I<sub>c</sub> is the critical length of the hydrocarbon chains and

a<sub>0</sub> is the optimum area of the polar head group (page 2, lines 3 to 5, page 2, line 58 to page 3, line 24, page 6, lines 36 and 37).

According to the description, the composition of the contested patent permits an effective control of water loss and/or repair of damage to the water barrier layer in the stratum corneum (page 2, lines 55 to 57).

Document (5) discloses a composition in the form of an aqueous liquid, which may be formulated as products for washing the skin (ie composition A of example 1), comprising:

(i) a lipid composition comprising two components D and E, where D is a molecule having one C<sub>8-24</sub> hydrocarbon chain and a hydrophilic head group [ie 2,4% cetyl alcohol, a C<sub>16</sub> alcohol] and E is a material which comprises at least one of a compound selected from 3 $\beta$ -sterol; squalane; squalene; saponins or sapogenins of the plant steroid or triterpenoid type; di and tri terpenes such as phytol, retinol and amyrrin [ie 5% Amerchol L-101, which is a 10% solution of lanolin alcohol, lanolin alcohol being the preferred product of the contested patent according to the examples]; and mixtures thereof; wherein D and E are respectively present at levels within the range 0.1 to 10wt% [ie 2,4%] and 0.2 to 12wt% [ie at least about 0.17% 3 $\beta$ -sterol; lanolin alcohol containing at least 30% cholesterol according to the disclosure in the patent in suit on page 7, line 32] based on the total composition;

(ii) 1-45 wt% of a surface active agent selected from anionic, nonionic [ie 3,1% glucamate SSE-20 and 1% glucate SS], cationic, zwitterionic, amphoteric surface active agents, soap and mixtures thereof;

and the composition is substantially free of a molecule having at least two hydrocarbon chains and a polar head group which satisfies the relationship

$$0.5 < V/a_0 I_c \leq 1.0;$$

where

V is the volume of the hydrocarbon chains

$I_c$  is the critical length of the hydrocarbon chains and

$a_0$  is the optimum area of the polar head group

(column 7, example 1, composition A).

As to the absence of a molecule fulfilling the above relationship in composition A, the Board notes that the patent in suit provides very little information about these types of molecules since "ceramides" and "a sucrose ester" are the only compounds mentioned in the application as examples of such molecules (page 2, lines 34 and 50).

The Board notes also that neither the Opposition Division, nor the parties in their written submissions have considered that composition A of document (5) contained a compound fulfilling the relationship expressed in claim 1 of the patent in suit.

Finally, the question whether such a molecule could be present in this composition was addressed during the oral proceedings by the Board and the parties were both of the opinion that the only difference between the subject-matter of claim 1 and composition A of example 1 remained the absence of a deposition aid (ie feature iii) of claim 1).

Under these circumstances the Board considers that document (5), which differs from the claimed subject-

matter merely in that a deposition aid (ie a cationic polymer) is absent in the disclosed composition A, represents the closest available prior art.

2.2.2 Although there is no direct evidence on file showing that the compositions of the contested patent have improved properties over the one disclosed in document (5), the Board accepts, in favour of the respondents, that the problem to be solved vis-à-vis this document was the provision of an improved formulation providing effective control of water loss and/or repair of damage to the water barrier layer in the *stratum corneum* as mentioned in the description of the contested patent and that this problem was plausibly solved by the subject-matter of claim 1.

2.2.3 Thus, the question to be answered is whether the proposed solution, ie adding a cationic polymer (ie a deposition aid), was obvious to the skilled person in the light of the prior art.

Having regard to document (5) which discloses that in a preferred embodiment a cationic polymer such as Jaguar C-14S (ie the same product as the one used in the examples of the patent in suit) can be added to the compositions to make the skin feel better, it appears that the skilled person, looking for an improvement of composition A, would, in any case and independently of the specific improvement to be achieved, consider the addition of a cationic polymer to the prior art composition A without inventive activity merely by applying the teaching of the same document (column 6, line 61 to column 7, line 3).

2.2.4 The main argument raised by the respondents was that document (5) was in fact silent about the teaching of the patent in suit, ie that molecule fulfilling the specific relationship of claim 1, such as ceramides, was not necessary anymore thanks to the particular combination of a lipid D with a lipid E.

They also argued that this document was silent about the synergetic effect obtained by the combination of a lipid D and E as demonstrated by the comparative examples of the contested patent.

They further added that the BSE epidemic made it very desirable to avoid the presence of bovine ceramides in cosmetic preparations and that it would not have been obvious to the skilled person to forgo a lipid which is a very important lipid for the skin.

2.2.5 As to these arguments, the Board notes that the specific combination of claim 1, ie the combination of a lipid D with a lipid E together with the absence of a molecule fulfilling the specific relationship of claim 1, such as ceramides, is in fact disclosed in composition A of the example of document (5) as shown under 2.2.1.

Accordingly, independently of the question whether the skilled person would have recognised that a synergetic effect existed between lipids D and E and that this particular effect made redundant the presence of a ceramide when reading document (5), the composition *per se* cannot be considered as inventive anymore as the person skilled in the art would prepare it without any inventive skill just by repeating example 1 and

implementing the teaching of this prior art document as emerges from point 2.2.3 above.

Under these circumstances, the Board can only conclude that the subject-matter of claim 1 as granted does not involve an inventive step vis-à-vis document (5).

Since claim 1 of the set of claims under consideration is not allowable, there is no need for the Board to consider the remaining claims.

3. *First auxiliary request*

The only difference between this request and the main request resides in that claim 1 now specifies that the personal wash compositions are "rinse-off" compositions.

Accordingly, claim 1 now requires that the compositions are suitable for use as rinse-off compositions, which implies that they cannot contain compounds incompatible with such a use.

Document (5) relates to compositions which have been improved so that a subsequent aqueous rinsing is not needed anymore (column 2, lines 52 to 55; column 4, lines 34 to 39).

The Board observes that this restriction introduced in claim 1 does not, however, add any further distinguishing feature to the composition disclosed in document (5) since, on the one hand, there is nothing in this document which would prevent the skilled person from rinsing the composition after use even so, and, on

the hand, there is no evidence on file that such a composition contains compounds which would make it unsuitable as a rinse-off composition.

Therefore, the skilled person does not need to make any choices above and beyond the main request and the conclusions under 2.2.5 thus hold good for this set of claims as well.

The respondents did not present any arguments in this request that were not in the main request.

4. *Second auxiliary request*

The only difference between this request and auxiliary request 1 resides in that the list of specific lipids of type E has been restricted to 3 $\beta$ -sterol.

The Board observes that this restriction introduced in claim 1 does not, however, add any further distinguishing feature to the composition disclosed in document (5) since composition A of this document contains precisely 3 $\beta$ -sterol (see point 2.2.1 above).

Therefore, the skilled person does not need to make any choices above and beyond the main request and the conclusions under 2.2.5 thus hold good for this set of claims as well.

The respondents did not present any further arguments in this request that were not in the main request.

5. *Third auxiliary request*

The only difference between claim 1 of this request and claim 1 of auxiliary request 1 resides in that claim 1 now includes the requirement for 0,5 to 15 wt% of a cosurfactant according to the formula  $R^1-[-CO-NH(CH_2)_m-]_n-N^+(-X-Y/-R^2/-R^3)$ .

The Board notes that these cosurfactants, such as betaines, are in fact usual and preferred cosurfactants for compositions like the one disclosed in document (5), as apparent from document (10), which relates to similar compositions (column 4, lines 64 to 68, column 5, lines 7 to 9), so the skilled person could envisage adding such compounds in composition A without inventive activity.

Accordingly, in the absence of any element showing that this restriction is not an arbitrary one, the Board sees no reason to differ from the negative conclusions reached under point 2.2.5 above.

6. *Fourth auxiliary request*

The only difference between this request and auxiliary request 1 resides in that the list of surface active agents in claim 1 (ie anionic, nonionic, cationic, zwitterionic, amphoteric and mixture thereof) has been restricted to anionic surfactants only.

The Board notes that anionic surfactants are in fact usual and preferred surfactants for compositions like the one disclosed in document (5), as apparent from



document (10), which relates to similar compositions (column 4, lines 42 to 51).

In that respect, the Board observes that the respondents are right that document (5) establishes that the compositions should be substantially free of anionic surfactants (column 6, lines 10 to 13).

However, this only applies when the compositions are to be used in a non-rinse mode as explained in the same document (column 6, lines 13 to 15).

Therefore, there is nothing which would prevent the skilled person from using such surfactants in composition A of document (5) if faced with the problem of using said composition in a rinse mode.

Accordingly, in the absence of any element showing that this particular choice among the list of surfactants previously mentioned is not an arbitrary one, the Board sees no reason to differ from the negative conclusions reached under point 2.2.5 above.

**Order**

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

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

The Registrar:

The Chairman:

A. Townend

U. Oswald