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D E C I S I O N
of 25 May 2000

Case Number: T 0119/99 - 3.3.6

Application Number: 91903488.4

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IPC: C11D 17/00

Language of the proceedings: EN

Title of invention:
Liquid cleaning products

Patentee:
UNILEVER PLC, et al

Opponent:
(01) Henkel Kommanditgesellschaft auf Aktien
(02) The Procter & Gamble Company

Headword:
Bulk density/UNILEVER

Relevant legal provisions:
EPC Art. 54(1)(2), 118

Keyword:
"Novelty - main request (no); 1st auxiliary request (no);
2nd auxiliary request (yes)"
"Inventive step (remittal to first instance)"
"Unity of European patent not affected although different
proprietors for different designated states"

Decisions cited:
T 0270/90

Catchword:
-



Case Number: T 0119/99 - 3.3.6

D E C I S I O N
of the Technical Board of Appeal 3.3.6
of 25 May 2000

Appellant: UNILEVER PLC
(Proprietor of the patent) Unilever House
Blackfriars
London EC4P 4BQ (GB)

Representative: Kan, Jacob Hendrik, Dr.
Unilever N.V.
Patent Division
P.O. Box 137
3130 AC Vlaardingen (NL)

Respondent I: Henkel
(Opponent 01) Kommanditgesellschaft auf Aktien
TTP/Patentabteilung
D - 40191 Düsseldorf (DE)

Respondent II: The Procter & Gambel Company
(Opponent 02) One Procter & Gamble Plaza
Cincinnati, OHIO 45202 (US)

Representative: Lawrence, Peter Robin Broughton
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London EC2M 7LH (GB)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 10 December 1998
revoking European patent No. 0 515 435 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Krasa
Members: G. N. C. Raths

Summary of facts and submissions

- I. This appeal lies from the Opposition Division's decision revoking European patent No. 0 515 435.

Claim 1 of the patent as granted read:

"1. A non-aqueous liquid cleaning composition comprising a particulate solid phase suspended in a non-aqueous liquid phase wherein the solid phase includes a metal oxide having a bulk density of 200 to 1000 g/l."

Dependent Claim 2 specified the metal oxide; dependent Claims 3 and 4 allowed for a dispersant, dependent Claim 5 for a deflocculant material; dependent Claim 7 specified the concentrations of the liquid and the solid phase; dependent Claim 8 specified the viscosity of a composition defined in terms of specific components and their concentrations.

- II. Two oppositions were filed, one based on the grounds of Article 100(a) EPC in particular on lack of inventive step (Article 56 EPC; Respondent I (Opponent 01)), the other on the grounds of Article 100(a) and (b) (lack of novelty, inventive step and insufficiency of disclosure; Articles 54(1), (2), 56 and 83 EPC; Respondent II (Opponent 02)). The oppositions were based, inter alia, on the following documents:

- (1) DE-A-1 964 312,
- (2) DE-A-2 255 509,
- (5) GB-A-1 205 711.

- III. In its decision, the Opposition Division held that the

subject-matter of the claims as granted was not novel, in particular, in view of document (5).

IV. An appeal was filed against this decision. The Appellant argued in essence that in view of the prior art cited, the range of the bulk density rendered the claimed subject-matter novel.

V. The Respondents argued in essence, in writing and orally

- that the bulk density of the metal oxide was a technical feature of the starting components, but not a technical feature of the final composition;
- that the bulk density of the metal oxide was reduced when the composition comprising the suspension including the metal oxide was milled; the extent of the reduction of the bulk density was such that the final composition was anticipated by document (5) (page 1, lines 68 to 79);
- that the error in measuring the bulk density and the extent of reduction of the bulk density of the final composition by milling were such that the composition according to Claim 1 would be anticipated by document (5).

In support of his arguments Respondent I referred, inter alia, also to documents

- (10) *R.D.Cadle*, Particle Size Determination, Interscience Publishers, Inc. New York, 1995, 292-5 and
- (11) *Carl Mittag*, Die Hartzerkleinerung, Springer-Verlag 1953, 3.

The Respondents also raised a question relating to the extent of these appeal proceedings since only one of the two patent owners i.e. Unilever N.V. of Rotterdam (NL) (abbreviated by Unilever N.V) had filed an appeal, but not Unilever PLC of London (UK) (abbreviated by Unilever PLC).

- VI. With the notice of appeal, the Appellant requested that the decision under appeal be cancelled entirely and, thus, by implication that the patent in suit be maintained as granted.

With a fax of 20 January 2000, the Appellant submitted two amended sets of 8 claims each, designated First auxiliary Request and Second auxiliary Request, respectively.

By fax of 24 January 2000 the eight claims of the First auxiliary Request were replaced by a new set of eight claims.

Claim 1 of the First auxiliary Request differed from Claim 1 of the main request in that the lower limit of the bulk density range was changed into "400 g/l".

Dependent Claims 2 to 8 corresponded to those of the patent as granted apart from minor editorial amendments in Claim 7.

Claim 1 of the Second auxiliary Request read:

"A process of preparing a non-aqueous liquid cleaning composition the process comprising mixing a particulate solid phase with a non-aqueous liquid phase wherein the solid phase includes a metal oxide having a bulk

density of 200 to 1000 g/l."

During oral proceedings before the Board of Appeal which took place on 24 February 2000, the Appellant submitted a further set of 8 claims as Third auxiliary Request, Claim 1 of which differed from that of the Second auxiliary Request by replacing "phase wherein" by "phase and milling the obtained blend, wherein" and furthermore by replacing "200 to 1000 g/l" by "400 to 1000 g/l".

- VII. The Appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or according to first, second or third auxiliary request.
- VIII. The Respondents requested that the appeal be dismissed.
- IX. At the end of the oral proceedings the Chairman announced that the debate was closed and that the decision would follow in writing as soon as possible.

Reasons for the decision

- 1. *Main request*
 - 1.1 Claim 1 of the patent in suit is directed to a non-aqueous liquid composition comprising a suspension having a solid phase including a metal oxide having a bulk density of 200 to 1000 g/l.
 - 1.2 During manufacture of the non-aqueous liquid detergent composition of the patent in suit, the metal oxide is to be mixed with the liquid phase. In order to minimise

the rate of sedimentation of the solids and to obtain reduced setting and reduced tendency to clear layer separation, the blend is passed through a mill to achieve a particle size of 0.1 to 100 μm (see patent in suit, page 7, lines 13 to 15).

1.3 Document (5) disclosed a process for preparing a detergent composition comprising a liquid detergent, an anhydrous inorganic builder and a metal oxide having a bulk density of 10 to 180 g/l (page 1, lines 68 to 79 and 81 to 83).

1.4 When deciding on novelty of the subject-matter of Claim 1, the question was whether the bulk density of the metal oxide was a distinguishing feature; it should be clear whether the bulk density of the metal oxide as starting material or the bulk density of the metal oxide in the final composition was concerned.

As submitted by the Respondents, in agreement with the decision of the Opposition Division, the bulk density of the metal oxide as starting powder was not a technical feature of the resulting milled composition.

The Appellant contested the Opposition Division's conclusion that the bulk density of the metal oxide as starting powder was not a technical feature of the resulting composition and submitted that the bulk density given in Claim 1 was that of the metal oxide in the composition and should not be ignored as a technical feature of the claimed subject-matter.

1.5 The Board cannot accept the Appellant's arguments.

1.5.1 According to the description of the patent in suit

(page 2, lines 11 and 12), "non-aqueous liquid detergent compositions can be formulated by including therein a metal oxide having a bulk density of 200 to 1000 g/l." Thus, the Board concludes that the bulk density given in Claim 1 characterizes the metal oxide **before** its incorporation into the claimed composition.

- 1.5.2 The manufacture of the claimed composition according to the patent in suit allows for milling the suspension (page 7, lines 13, 14 and 34).

Thus, milled as well as non-milled compositions are within the scope of Claim 1. The issue to be decided is whether or not the bulk density of the metal oxide to be incorporated into the respective composition can serve as a distinguishing feature of this composition when the latter was milled.

- 1.5.3 The Appellant did neither contest that milling will cause size reduction of large particles nor that the size distribution of the metal oxide has an influence on the bulk density (Grounds of Appeal, page 3, last sentence and page 4, last sentence of the first paragraph). It maintained, however, that the size reduction by milling would not change the bulk density which was independent of the radius of spherical particles (Grounds of Appeal, page 3, last sentence).

- 1.5.4 The Board cannot accept this latter argument. First of all the metal oxide particles will in reality not be uniform but will have different shapes and sizes as conceded by the Appellant (Grounds of Appeal, page 4, first sentence). More importantly, milling of the composition will change the size distribution of the metal oxide thereby changing its bulk density. It

follows, therefore, that the bulk density of the metal oxide used as starting material will not be that of the metal oxide in the milled composition and, therefore, is no distinguishing feature of the claimed composition.

- 1.5.5 A different conclusion could only be drawn if there were convincing evidence available to the Board that any change of the bulk density due to milling would create either no bulk density reduction at all or only a negligible one.
- 1.5.6 Whereas the Appellant argued, on the basis of the theoretical consideration that milling of the composition would either leave the bulk density of the metal oxide unchanged (see above point 1.5.3) or increase it, document (10) (page 293, last paragraph) and document (11) (page 3, table 2) state that the bulk density of material decreases when the particle size decreases. In such a situation of conflicting arguments it would have been up to the Appellant (who contested the correctness of the decision under appeal) to provide experimental evidence in support of its argument. The Respondents submitted that no conclusive data for the bulk density of the metal oxide in a milled composition could be obtained at all which was refuted by the Appellant. Be that as it may, the decisive point is that the Appellant did not provide any experimental evidence (see T 270/90, 4th last paragraph of point 2.1: "...the parties..carry the separate burdens of proof of any fact they allege.") demonstrating that milling of the respective compositions would not result in a substantial reduction of the metal oxide's bulk density and that, thus, the starting material's bulk density could also

serve as a characterizing feature of milled compositions as claimed.

1.5.7 When comparing the final milled composition which is encompassed by Claim 1 of the main request with any prior art composition, it has to be borne in mind, that the bulk density is not a feature characterizing the final composition. It follows that such a milled composition can not be distinguished from a detergent composition disclosed by document (5) which composition includes, inter alia, a liquid detergent and a metal oxide as inorganic carrier material.

1.6 For these reasons, the bulk density of the metal oxide does not render the subject-matter of Claim 1 of the patent in suit novel and, therefore, the main request is not allowable.

2. *First auxiliary Request*

2.1 Claim 1 of the First auxiliary Request differs from Claim 1 of the main request in that the lower limit of the bulk density range is "400 g/l" instead of "200 g/l".

2.2 The value of "400 g/l" is supported by the description as originally filed (page 2, line 6); no objections were raised in regard to this amendment; the Board is satisfied that Claim 1 meets the requirements of Article 84 and 123 EPC.

2.3 Since the bulk density of the metal oxide is not a distinguishing feature of the detergent composition, the value of "400 g/l" is irrelevant. Consequently, the auxiliary request must fail for the same reasons as the

main request; the subject-matter of Claim 1 lacks novelty (Article 54 EPC).

Therefore, the First auxiliary Request is not allowable.

3. *Second auxiliary Request*

3.1 Claim 1 of the Second auxiliary Request is directed to a process of preparing a cleaning composition mixing a solid phase with a non-aqueous liquid phase; the solid phase includes the metal oxide having a bulk density of 200 to 1000 g/l.

3.2 The change of a product claim into a process claim is supported by the description as originally filed (page 1, lines 25 to 30): "a non-aqueous liquid detergent composition can be formulated by including therein...". No objections were raised in regard to this amendment; the Board is satisfied that Claim 1 meets the requirements of Articles 84 and 123 EPC.

3.3 Document (5) discloses a process for preparing a detergent composition comprising a liquid detergent, an anhydrous inorganic builder and a metal oxide having a bulk density of 10 to 180 g/l (page 1, lines 68 to 79, 81 to 83).

3.4 One argument of the Respondents related to the measurement error when determining the bulk density; the difference between 180 g/l in document (5) and 200 g/l of the patent in suit is about 10%; the Respondents argued that the error in measuring the bulk density would be about 10%, and therefore an overlapping between the patent in suit and document (5)

could not be excluded.

- 3.5 Since neither document (5) nor the patent in suit disclose error margins concerning the bulk density measurements, the Board refrains from speculating on the impact of statistical evaluations on the measurements and just relies on the values such as disclosed in both documents what is considered to be a fair comparison basis.

In the patent in suit as well as in document (5), the bulk density is the feature of the metal oxide before being mixed with the non-aqueous liquid phase. As the bulk density disclosed by document (5) does not anticipate that one disclosed by the patent in suit, the subject-matter of Claim 1 is novel.

4. As inventive step had not yet been decided upon by the Opposition Division, the case is remitted to the first instance.

5. *Extent of the appeal proceedings*

On the patent in suit under the heading "Proprietors", there is the following entry:

Unilever PLC
London EC4P 4BQ (GB)
Designated Contracting States
GB

Unilever N.V.
NL-30000 DK Rotterdam (NL)
Designated Contracting States
CH DE ES FR IT LI NL SE

For the United Kingdom, the patent in suit is the property of Unilever PLC of London (UK) but it is the property of Unilever N.V. of Rotterdam (NL) for the other designated contracting states (CH, DE, ES, FR, IT, LI, NL and SE). Because of the fact that of these two proprietors only Unilever N.V. had filed an appeal, the question was raised by the Respondents whether the decision of the Opposition Division to revoke the patent in suit had become final as regards the United Kingdom since a decision of this Board in these appeal proceedings could only affect the part of the decision under appeal, i.e. the states CH DE ES FR IT LI NL SE, but not the part against which no appeal had been filed (by Unilever PLC), i.e. the state GB.

This argument does however not succeed because it does not take into account a basic principle of the EPC, i.e. the principle of the unitary procedure leading up to the grant of one European patent (or to the refusal of a European patent application). That basic principle clearly perspires from Article 118 EPC, stating explicitly that applicants for different contracting states shall - for the purpose of proceedings before the EPO - be regarded as joint applicants or proprietors.

Therefore this decision of the Board will have effect on the decision in first instance as a whole and for all designated contracting states.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division with the order to continue prosecution of the proceedings on the basis of the following documents:
 - claims: 1 to 8 of the second auxiliary request filed with the letter dated 20 January 2000.
 - description: pages 2 to 13 of the patent in suit.

The Registrar:

The Chairman:

M. Hörnell

P. Krasa