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D E C I S I O N
of 10 May 2005

Case Number: T 0629/01 - 3.3.1

Application Number: 92903843.8

Publication Number: 0563305

IPC: C09K 5/04

Language of the proceedings: EN

Title of invention:

Constant boiling compositions of fluorinated hydrocarbons

Patentee:

E.I. DU PONT DE NEMOURS AND COMPANY

Opponent:

SOLVAY SOLEXIS S.p.A.

Headword:

Refrigerants/SOLVAY SOLEXIS

Relevant legal provisions:

EPC Art. 54(1)-(4), 123(2)

Keyword:

"Amendments: disclaimer not allowable - excluded subject-matter not accidental anticipation"

"Novelty: claims of fourth auxiliary request (yes)"

Decisions cited:

G 0001/03

Catchword:

-



Case Number: T 0629/01 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 10 May 2005

Appellant: E.I. DU PONT DE NEMOURS AND COMPANY
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Representative: Mross, S.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 25 April 2001
revoking European patent No. 0563305 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: A. J. Nuss
Members: P. P. Bracke
R. T. Menapace

Summary of Facts and Submissions

I. The appeal lies from the Opposition Division's decision to revoke European patent No. 0 563 305 on the ground that the set of claims according to the main request underlying the decision under appeal did not meet the requirements of Article 123(2) EPC, since subject-matter was disclaimed which had not been disclosed in any of the documents

(6) EP-A-0 430 169 and

(7) EP-A-0 451 692.

Moreover, the Opposition Division found that the auxiliary request underlying the decision under appeal did not fulfill the requirement of novelty over any of the documents

(1) The NIST Workshop on Property Data Needs for the Ozone Safe Refrigerants held on 22 September 1988

and

(5) WO-A-91/05027.

II. During the written appeal proceedings the Appellant (Proprietor of the patent) filed several sets of claims.

As a **main request**, sets of six claims titled "auxiliary request I" (for the contracting states AT, CH, DK, ES, GR, LI, LU and SE) and "auxiliary request II" (for the contracting states DE, FR, GB, BE, IT and NL) were

filed with telefax of 24 August 2001. Claim 1 in each set read:

"1. Use of a substantially constant boiling non-flammable binary mixture which comprises 55 to 90 weight percent HFC-125 and 45 to 10 weight percent HFC-32 **but excluding a binary mixture consisting of 58.5 weight percent HFC-125 and 41.5 weight percent of HFC-32** as a replacement for refrigerant 502 in refrigeration equipment, designed to operate with refrigerant 502." (emphasis added)

As a **first auxiliary request**, sets of five claims titled "auxiliary request Ia" (for the contracting states AT, CH, DK, ES, GR, LI, LU and SE) and "auxiliary request IIa" (for the contracting states DE, FR, GB, BE, IT and NL) were filed with telefax of 5 May 2005. The content of Claim 1 in each set of claims corresponded with the content of Claim 1 of the main request.

As a **second auxiliary request**, sets of five claims titled "auxiliary requests Ib" (for the contracting states AT, CH, DK, ES, GR, LI, LU and SE) and "auxiliary request IIb" (for the contracting states DE, FR, GB, BE, IT and NL) were filed with telefax of 5 May 2005. Claim 4 of "auxiliary requests IIb" read:

"4. A substantially constant boiling, non-flammable binary mixture which comprises 60 to 85 weight percent of HFC-125 and 15 to 40 weight percent of HFC-32 **but excluding binary compositions consisting of 80 weight percent of HFC-125 and 20 weight percent of HFC-32 and**

60 weight percent of HFC-125 and 40 weight percent of HFC-32." (emphasis added).

As a **third auxiliary request**, a single set of four claims titled "auxiliary request III" was filed with telefax of 8 April 2005. The wording of Claim 1 corresponded with the wording of Claim 1 of the main request.

As a **fourth auxiliary request**, a set of three claims titled "auxiliary request IIIa" was filed with telefax of 5 May 2005. The claims read:

"1. Use of a substantially constant boiling non-flammable binary mixture which comprises 60 to 85 weight percent HFC-125 and 15 to 40 weight percent HFC-32 as a replacement for refrigerant 502 in refrigeration equipment, designed to operate with refrigerant 502."

"2. Use according to claim 1, wherein the mixture contains 60.6 weight percent HFC-125 and 39.4 weight percent HFC-32."

"3. Use according to claim 1, wherein the mixture comprises 70 to 80 weight percent HFC-125 and 20 to 30 weight percent HFC-32."

III. Oral proceedings before the Board were held on 10 May 2005.

IV. The Appellant essentially argued that the requirements of Article 123(2) and (3) EPC were met and that the

claimed subject-matter was novel over the cited prior art documents.

- V. The Respondent (Opponent) submitted that the claimed subject-matter could not benefit from the first claimed priority date in that document (5) had a counterpart, namely document

(5a) US-A-4 978 467,

which was published before the second priority date of the patent in suit. Since document (5a) was thus state of the art according to Article 54(2) EPC and since it was not an accidental anticipation, the disclaimer excluding subject-matter disclosed in document (5a) was not allowable.

Moreover, the Respondent contested the novelty of the claimed subject-matter over the disclosure of documents (1), (5a) and (7).

- VI. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of

- the sets of claims according to auxiliary requests I and II submitted with telefax of 24 August 2001 (**main request**);

- the sets of claims according to auxiliary requests Ia and IIa submitted with telefax of 5 May 2005 (**first auxiliary request**);

- the sets of claims according to auxiliary requests Ib and IIb submitted with telefax of 5 May 2005 (**second auxiliary request**);

- the set of claims according to auxiliary request III submitted with telefax of 8 April 2005 (**third auxiliary request**); or

- the set of claims according to auxiliary request IIIa submitted with telefax of 5 May 2005 (**fourth auxiliary request**)

or, otherwise, that the case be remitted to the department of first instance.

The Respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. *Main request*

The Appellant agreed that the claimed subject-matter was not disclosed in the earliest priority document US patent application number 628000, filed on 17 December 1990, and consequently, that documents published before the second priority date, 22 February 1991, were comprised within the state of the art according to Article 54(2) EPC. As document (5a) was published on 18 December 1990, it incontestably belongs to the state of the art according to Article 54(2) EPC.

According to the jurisprudence of the Boards of Appeal, as presented in the decision G 1/03 (OJ EPO, 2004, 413), an amendment to a claim by the introduction of a disclaimer may not be refused under Article 123(2) EPC for the sole reason that neither the disclaimer nor the subject-matter excluded by it from the scope of the claims have a basis in the application. However, in the order 2.1 of G 1/03 it is specified that the criterion to be applied for a disclaimer to be allowable to restore novelty over state of the art under Article 54(2) EPC is that it delimits a claim against an **accidental** anticipation; an anticipation is accidental if it is so unrelated to and remote from the claimed invention that the person skilled in the art would never have taken it into consideration when making the invention.

The disclaimer in Claim 1 (see the emphasised part) was intended to restore novelty of Claim 1 by removing the seventh binary mixture of pentafluoroethane and difluoromethane listed in Table I of document (5a). The relevant question in deciding whether the requirement of order 2.1 of G 1/03 was actually fulfilled is then, whether the disclosure of that composition is to be considered as an accidental anticipation.

Column 1, lines 7 to 10, of document (5a) makes it clear that the azeotrope-like compositions of pentafluoroethane and difluoromethane described therein are useful as refrigerants for heating and cooling applications and example 1 shows that from Table I, which lists the boiling point measurements of such compositions, it may be concluded that pentafluoroethane and difluoromethane form a positive

azeotrope. Since, thus, document (5a), as the patent in suit, is related to the field of refrigerants for heating and cooling applications, its content is not so unrelated to and remote from the claimed invention that the person skilled in the art would never have taken it into consideration when making the invention.

Document (5a) not qualifying as an accidental anticipation, the requirement of order 2.1 of G 1/03 is not fulfilled and, therefore, the subject-matter of Claim 1 is extended beyond the content of the application as filed, contrary to the requirement of Article 123(2) EPC.

3. *First auxiliary request*

Since Claim 1 contains the same disclaimer as Claim 1 of the main request, this request does not fulfil the requirement of Article 123(2) EPC for the reasons given in point 2.

4. *Second auxiliary request*

4.1 The disclaimer in Claim 4 according to "auxiliary request IIb" (see the emphasised part) was intended to restore novelty of Claim 4 by removing the two defined binary mixtures on the lower side of the triangular diagram in Figure 3 of document (7) falling within the weight percent ranges according to Claim 4, i.e. a composition consisting of 80 weight percent of HFC-125 and 20 weight percent of HFC-32 and a composition consisting of 60 weight percent of HFC-125 and 40 weight percent of HFC-32.

However, in document (6) similar triangular diagrams are presented in Figures 7 and 8, wherein on the lower side respectively the left side of the triangular diagram particular points indicate binary compositions consisting of 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100% HFC-32, the remaining being necessarily HFC-125. As these compositions are part of the disclosure provided by the triangular diagrams, binary compositions consisting of 90 respectively 70 weight% of HFC-125 and 10 respectively 30 weight% of HFC-32 have been made available by document (6).

Consequently, the technical information disclosed in document (6) goes well beyond the subject-matter excluded from Claim 4 according to "Auxiliary request IIb".

- 4.2 The Appellant, did not contest the presence of these particular points and that this disclosure is enabling; he argued, however, at variance with the facts as set out above, that those points did not correspond to real experimental compositions but only to points sub-dividing the scale of the triangular diagram's side and that, therefore, such points could not be considered disclosing the said binary compositions.

What matters in assessing novelty under the EPC is whether a skilled person would directly and unambiguously derive from a cited document compositions falling within the claimed scope, as long as the disclosure is enabling. That such compositions have not been specifically described in the description or in the experimental part is thus irrelevant, since Article 54(1), (2) and (3) EPC only specifies that an

invention shall be considered to be new if it does not form part of the state of the art, which shall be held to comprise everything **made available to the public**.

There is no provision in the EPC, from which it may be deduced that a graphic presentation is, for the purpose of disclosure, of less value than one made in writing "or in any other way" (cf. Article 54(2) EPC).

4.3 As a request is to be considered as a whole and Claim 4 according to sub-request IIb is not novel, the complete second auxiliary request must fail.

5. *Third auxiliary request*

Since Claim 1 contains the same disclaimer as Claim 1 of the main request, this request does not fulfil the requirement of Article 123(2) EPC for the reasons given in point 2.

6. *Fourth auxiliary request*

6.1 Article 123(2) and (3) EPC

Claim 1 is supported by the teaching on page 4, lines 5 to 26, of the application as filed; the weight percents in Claim 2 correspond with those of original Claim 5; and the weight percents in Claim 3 correspond with those described on page 4, lines 24 to 26, of the application as filed. Moreover, in comparison with granted Claim 1 the scope of protection of Claim 1 is restricted.

Thus, the requirements of Article 123(2) and (3) EPC are fulfilled. This was not contested by the Respondent.

6.2 Novelty

6.2.1 The Respondent submitted that document (1) destroyed the novelty of Claim 1, since HFC-125 and HFC-32 or mixtures thereof were cited on page 1 as suitable refrigerants for replacing refrigerant 502; it was known from page 2 that HFC-125 and HFC-32 form near-azeotropic mixtures; it was known from page 36 that HFC-32 is flammable whereas HFC-125 is non-flammable; and it was known from page 37 that it was obvious to use mixtures of flammable and non-flammable components to yield non-flammable mixtures.

However, according to the jurisprudence of the Boards of Appeal, in order to be novelty-destroying, all features in the claimed combination must be directly and unambiguously derivable from the teaching of one single document.

Since document (1) is silent about the amounts of HFC-125 and HFC-32 necessary for obtaining mixtures suitable for replacing refrigerant 502, already for this reason not all the features of Claim 1 are directly and unambiguously derivable from the teaching of document (1), which is thus not novelty-destroying in respect of Claim 1.

6.2.2 The Respondent also argued that document (5a) was novelty-destroying for Claim 1, since it was known from document (5a) that azeotropic-like compositions containing 1 to 50 weight percent of pentafluoroethane and 50 to 99 weight percent difluoromethane were useful as refrigerants for heating and cooling applications

(column 1, lines 7 to 10, and the paragraph bridging columns 2 and 3); that certain compositions outside that range are equally azeotrope-like (column 3, lines 32 to 34); that such compositions are useful for replacing environmentally unacceptable chlorofluorocarbons (column 1, lines 44 to 57); and that compositions containing in excess of 35.7 weight percent pentafluoroethane are non-flammable.

However, document (5a) neither generally nor specifically describes compositions containing 60 to 85 weight percent of HFC-125 and 15 to 40 weight percent of HFC-32. Therefore, for the reasons given in point 6.2.1 above, document (5a) cannot be considered to be novelty destroying for the use claimed in Claim 1.

6.2.3 Last but not least, since document (7) is concerned with ternary compositions and discloses binary compositions of HFC-125 and HFC-32 on the side of the triangular diagram in Figure 3 only as references (see page 3, lines 57 and 58), this document cannot be considered as disclosing the use of any of those binary compounds as a replacement for refrigerant 502 in refrigeration equipment, designed to operate with refrigerant 502. Therefore, the claimed use is novel over the disclosure of document (7).

7. *Remittal*

All reasons given by the Opposition Division's decision for revoking the patent in suit concern the requirements of Article 123(2) EPC and of novelty of the claimed subject-matter. The contested decision is completely silent about the question of whether the

claimed use meets the requirement of inventive step over the cited prior art.

Moreover, the Board notes that document (5) was considered state of the art according to Article 54(3) EPC in the contested decision and that the Respondent gave notice of the fact that document (5a) was state of the art according to Article 54(2) EPC only by telefax of 4 May 2005, i.e. a few days before the oral proceedings before the Board. Since, as a consequence thereof, the content of document (5a) is to be taken into consideration in assessing inventive step and the Respondent submitted in said telefax, without giving any detailed reasoning, that any claim meeting the requirement of novelty would lack inventive step over the disclosure of document (5a), the Appellant was not given a fair and reasonable opportunity to prepare himself for dealing adequately with this new situation in the oral proceedings before the Board of Appeal.

Having regard to the fact that the function of the Boards of Appeal is primarily to give a judicial ruling upon the correctness of an impugned decision taken by the first instance and in order to give the Appellant the possibility of having his case examined and decided by two instances, the Board exercises its discretionary power under Article 111(1) EPC and remits the case to the Opposition Division for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution on the basis of Claims 1 to 3 of the fourth auxiliary request ("Auxiliary Request IIIa" filed on 5 May 2005).

The Registrar:

The Chairman:

N. Maslin

A. Nuss