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**D E C I S I O N**  
**of 25 October 2000**

**Case Number:** T 0224/97 - 3.3.1

**Application Number:** 90309536.2

**Publication Number:** 0415778

**IPC:** C10M 105/00

**Language of the proceedings:** EN

**Title of invention:**  
Refrigeration oil composition

**Patentee:**  
KAO CORPORATION

**Opponent:**  
NOF Corporation  
The Lubrizol Corporation

**Headword:**  
Refridgeration oil composition/KAO

**Relevant legal provisions:**  
EPC Art. 123(2), 54(3)(4)

**Keyword:**  
"Support by the application as filed within the meaning of  
Article 123(2) EPC (yes)"  
"Novelty under Article 54(3)(4) EPC (yes) - multiple selection  
from two independent lists of starting compounds"

**Decisions cited:**  
T 0012/81, T 0198/84, T 0279/89, T 0666/89, T 0401/94,  
T 0720/96, T 0231/97, T 0524/97

**Catchword:**

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Case Number: T 0224/97 - 3.3.1

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.1**  
**of 25 October 2000**

**Appellant:** NOF Corporation  
(Opponent 1) No. 10-4, Yuraku-Cho 1-Chome  
Chiyoda-ku, Tokyo 100 (JP)

**Representative:** Lamb, John Baxter  
MARKS & CLERK  
57-60 Lincoln's Inn Fields  
London WC2A 3LS (GB)

**Other party:** The Lubrizol Corporation  
(Opponent 2) 29400 Lakeland Boulevard  
Wickliffe, Ohio 44092 (US)

**Representative:** VOSSIUS & PARTNER  
Postfach 86 07 67  
D-81634 München (DE)

**Respondent:** KAO CORPORATION  
(Proprietor of the patent) 14-10, Nihonbashi Kayaba-cho, 1-chome  
Chuo-ku  
Tokyo (JP)

**Representative:** Bannerman, David Gardner  
Withers & Rogers  
Goldings House  
2 Hays Lane  
London SE1 2HW (GB)

**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office posted 27 December  
1996 concerning maintenance of European patent  
No. 0 415 778 in amended form.

**Composition of the Board:**

**Chairman:** J. M. Jonk

**Members:** P. F. Ranguis  
S. C. Perryman

## Summary of Facts and Submissions

- I. The Appellant (Opponent 1) lodged an Appeal against the interlocutory decision of the Opposition Division maintaining the European patent No. 0 415 778 (European application No. 90 309 536.2) in amended form when deciding on two oppositions filed on the grounds that the subject-matter of the patent in suit lacked novelty and did not involve an inventive step as indicated in Article 100(a) EPC.
- II. The decision was based on claims 1 to 4 as filed on 5 November 1996 and on pages 2 to 12 of the description submitted at the oral proceedings before the Opposition Division on 17 December 1996.

Claim 1 of said set of claims, comprising a correction (line 4: "an" instead of "and") as submitted during the oral proceedings before the Opposition Division, read as follows:

- "1. A refrigeration oil composition comprising:
- (1) a hydrogenated fluoroethane and
  - (2) an ester compound obtained only from:
    - (2-a) an aliphatic dihydric alcohol having 1 to 2 primary hydroxyl groups;
    - (2-b) a branched saturated aliphatic monocarboxylic acid having 2 to 9 carbon atoms, or a derivative thereof; and

(2-c) a saturated aliphatic dicarboxylic acid having 2 to 8 carbon atoms, straight or branched, or a derivative thereof,

said ester compound having a kinematic viscosity at 100°C in the range of 1 to 100 × 10<sup>-6</sup>m<sup>2</sup> / S(cst)."

III. The Opposition Division held that the subject-matter of the claims was novel under Article 54(3)(4) EPC, since it concerned a specific combination of features which could not be directly derived from the cited documents:

- (1) EP-A-0 406 479, and
  
- (4) WO-A-90/12849 (EP-A-0 422 185),

both documents being state of the art within the meaning of Article 54(3)(4) EPC for all the Contracting States designated in the patent in suit.

Furthermore, the Opposition Division held that the ground of opposition based on Article 56 EPC was insufficiently founded, because neither Opponent 1 nor Opponent 2 had put forward reasons attacking the required inventive step. Nevertheless, the Opposition Division considered the question of inventive step of its own motion in the form of additional comments to its decision and concluded that, in the light of the prior art cited by the opponents, the claimed subject-matter also involved an inventive step.

IV. Oral proceedings before the Board were held on 25 October 2000. Opponent 2, who was a party to the appeal proceedings as of right under Article 107 EPC,

having been duly summoned, did not attend these oral proceedings.

- V. The Appellant argued that the subject-matter of claim 1 did not meet the requirements of Article 123(2) EPC, because it concerned a combination of features extending beyond the content of the application as filed. In this context, he submitted in particular that the definition of the ester compound in the composition of present claim 1 involved arbitrary selections within the broad meanings of the components (2-a), (2-b) and (2-c) as disclosed in the originally filed application, as well as the restriction that it was obtained only from said three components, i.e. excluding the use of additional starting constituents. He concluded, that the so generated subject-matter was novel when compared with the content of the original application, and consequently not allowable under Article 123(2) EPC.

The Appellant also argued that the subject-matter of the present claims lacked novelty in view of documents (1) and (4) under Article 54(3) (4) EPC.

With respect to document (1) he submitted in particular:

- that this document - according to a first embodiment of the invention - disclosed refrigeration oil compositions comprising a hydrogenated fluoroethane and an ester mixture obtained from (i) neopentyl glycol, (ii) at least one monovalent fatty acid having 3 to 18 carbon atoms, such as isoheptanoic acid and 2-ethyl hexanoic acid, and (iii) optionally a polybasic acid having preferably 4 to 10 carbon atoms, such

as adipic acid and glutaric acid;

- that suitable esters met the viscosity condition as indicated in present claim 1 of the patent in suit;
- that there was an almost complete overlap between the composition as defined in claim 1 of the patent in suit and the scope of the disclosure of document (1); and
- that the claimed subject-matter could only be seen as an arbitrary selection which did not meet the criteria for a selection to be novel as required in the decisions T 198/84 (OJ EPO 1985, 209); T 279/89 of 3 July 1991 and T 666/89 (OJ EPO 1993, 495), in particular because:
  - (i) the concrete examples of the disclosure of document (1), though falling outside the scope of the claimed subject-matter of the patent in suit, were in fact closely related to those of the present patent,
  - (ii) document (1) included each component constituting the ester defined in the claim 1 of the patent in suit, so that it could not be said that the scope of the invention was narrow as compared with that of said document,
  - (iii) the refrigeration oil compositions of present claim 1 did not show unexpected effects as compared with the examples A-5 and A-8 of document (1) or with the examples



of the application as filed relating to straight saturated aliphatic monocarboxylic acids now deleted.

Moreover, he contested the statement of the Opposition Division concerning document (1) that it did not indicate the use of saturated monovalent fatty acid, and he observed in this context that at the priority date of the patent in suit industrially available fatty acids, particularly in the carbon number range 7-9, were saturated as shown in document

(12) Exxon Chemical: The Universe of Acids (Nov. 1989).

Concerning document (4), the Appellant accepted during the oral proceedings that the novelty objection based on document (4) essentially corresponded to that raised with respect to document (1). Therefore, he substantiated his novelty objection merely with document (1).

VI. The Respondent (Proprietor of the patent) disputed that the subject-matter of present claim 1 extended beyond the disclosure of the application as filed.

Furthermore, he submitted regarding the ground of opposition based on Article 54(3)(4) EPC, in essence:

- that none of the examples given in document (1) fell within the scope of present claim 1,
- that numerous selections had to be made from the broad disclosure of document (1) in order to arrive at the specific ester as defined in present claim 1, and

- that therefore the claimed subject-matter did not form part of the state of the art.

VII. The Appellant (Opponent 1) requested that the decision under appeal be set aside and that the patent be revoked.

Opponent 2, being a party as of right, did not file any request.

The Respondent (Proprietor of the patent) requested that the appeal be dismissed.

VIII. At the conclusion of the oral proceedings the Board's decision was pronounced.

## **Reasons for the Decision**

### 1. *Admissibility*

1.1 The appeal is admissible.

### 2. *Scope of the appeal*

2.1 The Opposition Division held that the ground of opposition based on Article 56 EPC was insufficiently founded, but it nevertheless considered the question of inventive step of its own motion and concluded that the claimed subject-matter involved an inventive step. As the Appellant did not contest this finding, the Board sees no reason to deviate from it.

Therefore, and in view of the submissions of the

parties in these proceeding, the only issues to be dealt with are (i) the question whether the subject-matter of the present claims is supported by the application as filed as required under Article 123(2) EPC, and (ii) whether the claimed subject-matter is novel under Article 54(3)(4) EPC.

3. *Compliance with Article 123(2) EPC*

3.1 The subject-matter of present claim 1 is supported by

- (i) claim 6 representing a preferred embodiment of the oil composition as defined in claim 1,
- (ii) the definition of the preferred ester compound on page 7, second paragraph, and
- (iii) the examples relating to the compounds 3, 10, 11, 12 and 13

of the application as filed.

3.2 In this respect, the Appellant alleged that the subject-matter of present claim 1 resulted from a multiple selection from several broadly defined features constituting a composition, which did not form part of the disclosure of the application as filed.

However, the composition as defined in present claim 1 corresponds to the preferred embodiment as disclosed in claim 6 of the application as filed, except that the monocarboxylic acid (component (2-b)) indicated in present claim 1 is restricted to its explicitly indicated branched-chain form by deleting the explicitly indicated straight-chain form. Such a

restriction of only one of the components (2-b) for obtaining the ester compound to an explicitly defined one can, in the Board's judgment, only result in matter which a skilled person would have objectively derived from the disclosure of the application as filed.

Concerning the term "only" in present claim 1 (line 3), the Board observes that this term merely restricts the scope of the ester compound to its actually disclosed embodiment.

3.3 Furthermore, the Board found that present dependent claims 2 to 4 corresponded to claims 7, 8 and 9, respectively, of the application as filed.

3.4 Therefore, the Board concludes that all the present claims meet the requirements of Article 123(2) EPC.

4. *Novelty under Article 54(3)(4) EPC*

4.1 In view of the fact that the Appellant accepted that the content of document (4) was not more relevant with respect to the novelty of the subject-matter of the present claims than document (1), and because the Board did not see any reason to deviate from this point of view, the only question to be decided is whether the claimed subject-matter is novel under Article 54(3)(4) EPC in the light of document (1).

4.2 Document (1) relates to refrigerants containing hydrofluorocarbons and lubricants, which in the form of a first embodiment are defined by claims 1 and 2 reading as follows:

"1. A lubricant for hydrofluorocarbon refrigerant

comprising as a main component an ester comprised of neopentyl glycol and at least one straight or branched-chain monovalent fatty acid having a carbon number of 3-18."

"2. The lubricant according to claim 1, wherein at least one polybasic acid having a carbon number of 4-36 is further esterified in an amount of not more than 80 mol% per total fatty acid with said neopentyl glycol."

4.3 Moreover, the parties in these proceedings agreed that document (1) also disclosed that the optionally used polycarboxylic acid as indicated in said claim 2 had preferably 4 to 10 carbon atoms, and that in accordance with claims 1 and 2 aliphatic monocarboxylic acids and aliphatic dicarboxylic acids could be used, which fall within the scope of the components (2-b) and (2-c), respectively, as defined in present claim 1.

4.4 However, in reading document (1) the skilled person would derive from its technical teaching that a suitable monocarboxylic acid can be straight or branched, saturated or unsaturated, and can be selected from a broad range of compounds having 3 to 18 carbon atoms (see the list of monocarboxylic acids on page 3, lines 37 to 41), and that a suitable polycarboxylic acid can be aliphatic or aromatic, saturated or unsaturated, and can have 2 or more (preferably 3) carboxyl groups (see the list of polycarboxylic acids on page 3, lines 53 to 56).

4.5 Thus, in order to arrive at a composition in accordance with present claim 1 of the patent in suit, the skilled person would have to consider the use of a polycarboxylic acid as mandatory. Moreover, he would

also have to make a specific multiple selection from two independent lists of starting components for the preparation of the ester compound.

Furthermore, the Board observes that document (1) does not comprise any example of compositions falling under the scope of present claim 1, nor does it comprise any pointer to the use of the particular combination of starting components as defined in present claim 1 under (2-a), (2-b) and (2-c).

4.6 Under these circumstances, and in accordance with the established jurisprudence of the Boards of Appeal (see e.g. T 12/81 (OJ 1982,296), T 401/94 of 18 August 1994, T 720/96 of 16 September 1999, T 231/97 of 21 March 2000, and T 524/97 of 16 May 2000), the Board concludes that the ester compound as defined in present claim 1, and consequently the claimed refrigeration oil composition, should be regarded as being novel under Article 54(3)(4) EPC.

4.7 In this context, the Appellant submitted that the subject-matter of the present claims could not be considered as a novel selection invention, since it did not meet the required criteria therefore as has been set out in the decisions T 198/84, T 279/89 and T 666/89.

However, the Board cannot accept this submission for the following reasons:

The criteria for selection inventions indicated in T 198/84 and T 279/89 relate to the selection of a sub-range of a known broader range. This is not the case here. Furthermore, two of the three criteria developed

in those decisions, i.e. the selected sub-range should be narrow and the selected sub-range should be far removed from the prior art preferences and examples, are meaningless in the present case, in which a multiple selection of features has been made from different lists of some length. The third criterion indicated in T 198/84 and T 279/89, namely, that the selected sub-range should not be arbitrarily chosen from the prior art, but must be purposively selected, is in the Board's judgment not a proper novelty criterion, but merely a confirmation of a previously formed opinion on novelty. This point of view is actually confirmed in T 666/89 (point 8 of the reasons) and by the decision T 720/96 (point 2.1.3 of the reasons).

Likewise, the Appellant's argument, that the combination of starting components for obtaining the ester compound of the composition as claimed in present claim 1 would have been seriously contemplated by a skilled person and therefore would lack novelty as indicated in the decision T 666/89, cannot be accepted either. Apart from the question whether the criterion "seriously contemplating" is a proper novelty criterion, there is - as indicated above - no evidence in the present case that a skilled person indeed would have seriously contemplated the use of the specified composition of matter as defined in present claim 1.

## **Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

N. Maslin

J. M. Jonk