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Bezeichnung der Erfindung:

Halogenated esters of cyclopropane acids, their preparation, compositions and use as pesticides

Title of invention:

Titre de l'invention :

CO7C 69/747

ENTSCHEIDUNG / DECISION

vom / of / du

20 July 1989

Anmelder / Applicant / Demandeur :

Patentinhaber / Proprietor of the patent /

Klassifikation / Classification / Classement :

Titulaire du brevet :

ICI PLC

Einsprechender / Opponent / Opposant :

BAYER AG

Stichwort / Headword / Référence :

Pesticides/ICI

EPÜ / EPC / CBE

Art. 54(3) EPC, Art. 123(2)

Schlagwort / Keyword / Mot clé:

"Novelty (affirmed after amendment) - necessity of disclaiming prior art disclosed in generic form" - "new matter (no) - delimitation by features excluding prior art not disclosed in the application as filed"

Leitsatz / Headnote / Sommaire

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Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number : T 192/88 - 3.3.1



DECISION of the Technical Board of Appeal of 20 July 1989

Appellant:

Imperial Chemical Industries PLC

(Proprietor of the patent)

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Respondent: (Opponent)

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Representative:

Decision under appeal:

Decision of \* Opposition Division of the European

Patent Office dated 9 March 1988 revoking

No. 0 010 879 European patent

pursuant to

Article 102(1) EPC.

Composition of the Board:

Chairman: K. Jahn

Members : R. Spangenberg

J. Stephens-Ofner

EPA/EPO/OFB Form 3002 11.88

## Summary of Facts and Submissions

I. The mention grant of European patent No. 10 879 in respect of European patent application No. 79 302 135.3 filed on 8 October 1979 claiming two priorities of 27 October and 24 November 1978 of earlier applications in the United Kingdom was announced in Bulletin 83/17 on 27 April 1983. The patent specification contained fourteen claims; Claims 1 and 6 read as follows:

## "1. A compound of formula:

$$\begin{array}{c} \text{CF}_3\text{-C=CH-CH} & \begin{array}{c} \text{O} \\ \text{\parallel} \\ \text{CH}_3 \end{array} \\ \text{CH}_3 \end{array} \quad \begin{array}{c} \text{CH-C-O-CH-R} \\ \text{R}^2 \end{array}$$

wherein  $R^1$  is chloro, bromo, fluoro or trifluoromethyl,  $R^2$  is hydrogen, methyl or cyano, and R is a halophenyl group bearing at least one fluorine atom.

- 6. Pentafluorobenzyl (±)-cis/trans-3-(2-chloro-3,3,3-trifluoroprop-1-en-1-yl)-2,2-dimethylcyclopropane carboxylate."
- II. A Notice of Opposition was filed on 25 January 1984 wherein the revocation of the patent was requested as far as Claims 1 to 4 and 6 are concerned. The stated Ground for Opposition was lack of novelty with respect to
  - (1) EP-A-8 340

a document belonging to the state of the art according to Article 54(3) and (4) EPC.

III. By a decision dated 9 March 1988, the Opposition Division revoked the patent on the ground of lack of novelty since the subject-matter of Claims 1 to 4 and 6 as granted, as well as Claims 1 to 4 and 6 of an alternative set of claims, filed as an auxiliary request and differing from the claims set as granted by adding at the end of Claim 1 the following proviso:

"provided that where R is pentafluorophenyl,  $R^1$  is chloro and  $R^2$  is hydrogen the compound is not a mixture of  $(\pm)$  - cis and  $(\pm)$  -trans isomers containing less than 40% w/w of the  $(\pm)$  -cis isomer"

and a corresponding disclaimer to Claim 6, was anticipated by (1).

It was pointed out that the mixture of stereoisomeric compounds of Claim 6 as well as the corresponding compounds of Claim 1 wherein R<sup>1</sup> is bromo were disclosed in (1) on page 10, lines 14 to 17, and that the disclosure in (1) enabled the skilled person to obtain these compounds. Having regard to Example 7, in combination with Examples 13, 14, 16 and 17 also the pure cis/trans-stereo-isomers of Claim 6 were regarded as being implicitly disclosed according to the principles set out in the "Diastereomers" decision (T 12/81, OJ EPO 1982, 296).

Moreover the proviso in Claims 1 and 6 was held unallowable pursuant to Article 123(2).

IV. On 5 May 1988 an appeal was lodged against this decision and the appropriate fee was paid. A Statement of Grounds

was received on 12 July 1988. Oral proceedings were held on 20 July 1989. The Appellant disputed that (1) provided an unambiguous disclosure of the cis- and trans-isomers of 2,2-dimethyl-3-(2-chloro-3,3,3-trifluoropropenyl)cyclopropane carboxylic acid pentafluorobenzyl ester, since the disclosure of the corresponding cis- and transacid chlorides in Example 13 and 14 did not imply the disclosure of the respective pentafluorobenzyl esters, which were a selection from two lists of starting materials (acid chlorides and alcohols). These compounds, he alleged, should therefore be regarded as novel in application of the principles laid down in the "Diastereomers" decision. Reference in this respect was also made to two more recent decisions of this Board, "Copolymers/Dupont" (T 124/87 of 9 August 1988) and "Enantiomere/Hoechst" (T 296/87 of 30 August 1988), the headnotes of these decisions being published in OJ EPO 6/1989.

It was also urged by the Appellant that the mentioning of 2,2-dimethyl-3-(2-bromo-3,3,3-trifluoropropenyl) - cyclopropane carboxylic acid pentafluorobenzyl ester on page 10, lines 16 and 17 should be disregarded, since it was not an enabling disclosure according to the principles of the decision "Herbicides/ICI" (T 206/83, OJ EPO 1987, 5) as the required starting materials were not disclosed in (1).

V. The Respondent argued that (1) contained sufficient information to enable a skilled person to obtain the compounds generically disclosed in (1), page 10, lines 14 to 17 and, more specifically, also the respective cis- and trans-stereoisomers of the 2-chloro compound referring to the reaction sequence set out in Examples 21, 20, 18, 15 and 7 of (1). Therefore, these compounds were regarded as being disclosed in (1).

VI. The Appellant requested that the decision under appeal be set aside, and the patent be maintained on the basis of the claims contained in Set A (main request) or Set B (auxiliary request) both submitted on 16 June 1989.

Claims 'Set A' corresponds to the auxiliary request considered by the Opposition Division. Claim 1 of Set B reads as follows:

"A compound of formula:

$$CF_3-C=CH-CH \xrightarrow{C} CH-C-O-CH-R$$

$$CH_3 CH_3$$

wherein  $R^1$  is chloro, bromo, fluoro or trifluoromethyl,  $R^2$  is hydrogen, methyl or cyano, and R is a halophenyl group bearing at least one fluorine atom, provided that where R is pentafluorophenyl and  $R^2$  hydrogen,  $R^1$  may not be chloro or bromo."

At the end of the oral proceedings the decision of the Board was announced.

## Reasons for the Decision

- The appeal complies with the requirements of Articles 106 to 108 EPC and Rule 64 and is, therefore, admissible.
- The sets of claims according to Set A and Set B contain amendments of the respective Claims 1 which by reference
   also amend Claims 5 and 9 to 14 of Set A, and Claims 5

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and 8 to 13 of Set B, which contain a reference to the respective Claim 1.

Express notice of opposition has, however, only been given to the scope of "Claims 1-4 and 6". If the notice of opposition is to be taken literally, these claims are not comprised in it, and the Board has no power under the EPC to allow an amendment of these claims for the reasons set out in the decision "Zeolites/ICI" (T 09/87 of 18 August 1988, Headnote published in OJ EPO 6/1989).

However, since all these claims contain a reference at least to the respective Claim 1, the Board construes the notice of opposition as comprising these claims to the same extent as they refer to the respective Claim 1. Therefore, the Board has power to consider the allowability of these claims.

- 3. Main request:
- Opposition division because it did not satisfy the requirements of Article 123(2) EPC. However, the Board does not find it appropriate to investigate in detail this question because the Appellant's main request must fail for other reasons.
- Document (1) is the publication of the content of European patent application 79 102 223.9, which was filed on 2 July 1979, claiming priority of 15 July 1978. All Designated States of the patent in suit are also designated therein. Consequently, the content of this application belongs to the state of the art according to Article 54(3) and (4) EPC. It is therefore necessary to

investigate whether the subject-matter comprised in Claim 1 of the main request is disclosed in (1).

3.3 The Respondent's main argument in this respect is that the sequence of reaction steps specified in Examples 21, 20, 19, 17 and 14 describes the preparation of the cis- acid chlorides which, when reacted with pentafluorobenzyl alcohol, in the same way as the mixture of isomeric acid chlorides employed in Example 7, inevitably yields the cis-ester as claimed in Claim 7 as granted. Since this product is not excluded from Claim 1 under consideration, this claim lacks novelty with respect to (1) in application of the principles laid down in the "Diastereomers" decision.

This argument, however, is based upon a misinterpretation of the principles laid down in that decision and must therefore fail. The situation in the present case differs in an important aspect from the situation underlying the cited "Diastereomers" case, where the prior art taught the reduction of ketones defined by a certain general formula, including 20 individual members covered by this group, by five optional methods, the common of which is the transfer of hydrogen to the ketone resulting in the formation of a secondary alcohol.

Although in an Example the reduction of the specific starting ketone of the patent application with which this decision was concerned was only performed by a method not identical with that claimed in the disputed patent, it was held that the disclosure of the citation included the product which is the inevitable result of the reduction of the exemplified ketone by each of the other reduction methods, because, under these circumstances, the disclosure of the starting product and the reaction process in which hydrogen is invariable as the other

reaction partner, unalterably establishes the reaction product (see Reasons for the Decision, items 7 to 9).

This essential requirement is, however, missing from the present case, where the esters generically disclosed in (1) are the result of a reaction involving the combination of the structural elements of two variable reaction partners. Hence, according to (1) the acid chloride of Example 14 may be reacted with any of the alcohols mentioned in this document and all these options result in structurally different esters. The present case therefore has some similarity with the situation which was addressed in item 13 of the "Diastereomers" decision, where it was pointed out - in order to facilitate the understanding of the principle underlying this decision - that in a case where the starting materials were to be selected from two separate lists, the product of the mental combination of two individual members of these lists may be regarded as a selection, and hence as new.

The mental combination of Examples 7 and 14 is not allowable for the purpose of assessing the novelty of the resulting cis-ester, since the "acid chloride" employed in Example 7 is an unspecified mixture of geometrical and optical isomers, hereinafter referred to as "stereo-isomers" and certainly not the cis-acid chloride of Example 14. In the Board's judgement, different stereoisomers of compounds having an identical chemical structure are different compounds, for the reasons already set out in a similar case, see the "Enantiomers" -decision mentioned above. This acid chloride must be reacted with pentafluorobenzyl alcohol selected from a number of suitable alcohols. In the Board's judgment, therefore, the prior art does not disclose the specific combination of

the two starting materials and for this reason the product of Claim 7 as granted cannot be regarded as the inevitable result of a reaction disclosed in (1).

3.4 On page 10, lines 14-17 in (1) two chemical structures are mentioned in a list, namely

2,2-dimethyl-3-(2-chloro-3,3,3-trifluoropropenyl)cyclopropane carboxylic acid pentafluorobenzylester and
2,2-dimethyl-3-(2-bromo-3,3,3-trifluoropropenyl)cyclopropane carboxylic acid pentafluorobenzyl ester.

Both of these names define a group of eight sterically different individual compounds and are, therefore, generic definitions. In the Board's judgement, the fact that a disclosure belonging to the state of the art is of generic character, e.g. relates to a group of chemical entities without specifying its members, does not mean that it cannot take away the novelty of a patent claim comprising the same disclosure (cf. the cited "Copolymers" decision).

In the decision "Isochinolinderivate/Hoechst" (T 81/85 of 17 March 1989, see especially paragraph 4.6 of the reasons), it is stated that the novelty of the compounds disclaimed from the application with which this decision is concerned has been assessed according to the principles laid down inter alia in the "Diastereomers" decision. However, the reasons given in this decision do not exclude that an unequivocal generic prior disclosure can be taken into account when assessing the novelty of a patent claim, since according to the cited paragraph of this decision it was only held unallowable to consider for this purpose combinations of generic expressions retrospectively selected by the Examining Division which were, in this

combination, not unambiguously derivable from the prior art and could, therefore, not be regarded as disclosed therein.

- 3.5 In the Board's judgement, the information contained in (1) is sufficient to put the relevant generic disclosure into practice. Whilst it is true that no working example can be found in (1) describing the preparation of entities comprised by the expression 2,2-dimethyl-3-(2-bromo-3,3,3trifluoropropenyl)-cyclopropane carboxylic acid pentafluorobenzyl ester, the Board is satisfied that a person skilled in the art would be able to produce these compounds, following the specific description given for the preparation of the analogous 3-(2-chloro)-compounds. The Appellant has not produced any evidence that a person skilled in the art could not prepare these compounds following the teaching in (1). The situation is therefore quite different from that underlying the decision "Herbicides/ICI" (T 206/83, OJ EPO 1987, 5) where it was held that the starting materials could not be prepared following the teaching in the patent application in combination with the common general knowledge. Thus, in the present case, the cited generic disclosure must not be disregarded and, since it is not excluded from Claim 1 according to the main request, destroys the novelty of that claimed subject-matter.
- Moreover, the disclaimers contained in Claims 1 and 6 of the main request do also not exclude the subject-matter disclosed in Example 7 of (1). According to this example a mixture of stereoisomeric 2,2-dimethyl-3-(2-chloro-3,3,3-trifluoropropenyl)-cyclopropane carboxylic acid chlorides is reacted with pentafluorobenzyl alcohol. No specific mixture of stereoisomeric acid chlorides is disclosed in

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this example, however, one such mixture is described in Example 15, which, according to the Appellant's submission should be regarded as being prepared from the mixture of the corresponding acids described in Example 18. In the Appellant's opinion Example 7 should be construed as relating to the further reaction of this specific mixture of stereoisomers. However, in the Board's judgement the disclosure of Example 7 is not limited to the reaction product of that mixture but includes the reaction products of any mixture of the cis- and trans-acid chlorides (being themselves mixtures of four possible stereoisomers) described in Examples 16 and 17. The disclaimers in Claims 1 and 6 according to the main request define such mixtures by a numerical range overlapping with the disclosure of Example 7 of (1) on its proper construction. According to the Board's consistent jurisprudence with respect to the novelty of numerical ranges (see e.g. "Thiochloroformate", T 198/84, OJ EPO 1985, 209, confirmed by inter alia "Copolymers/Du Pont" cited by the Appellant) a known numerical range overlapping with a claimed numerical range normally destroys the novelty of the latter even if no specific example of the prior art falls within the claimed range. Following this principle, in the Board's judgement the subject-matter of Claims 1 and 6 lacks novelty also in this respect.

## 4. Auxiliary request:

4.1 No objection under Article 123(2) arises against the wording of the claims of Set B. The disclaimer in Claim 1, which also limits by reference the subject-matter of Claims 2 to 5 and 8 to 13, only excludes subject-matter being clearly and unambiguously disclosed in (1). It therefore only excludes subject-matter which cannot be protected because it already belongs to the state of the art. In the Board's judgement, in the present case, the

exclusion of such subject-matter does not introduce "new matter" within the meaning of Article 123(2), even though the matter excluded is not derivable from the application as filed (see the decision T 433/86 of 11 December 1987, reported in EPOR 1988, 97-104, especially p. 100, item 2). Claims 6 and 7 correspond to Claims 7 and 8 as granted which were not comprised by the notice of opposition.

- The subject-matter comprised by Claims Set B is novel with respect to (1) since the generic disclosure contained in (1) is now disclaimed. This fact need not be explained in more detail since it has not been disputed by the Respondent.
- The Respondent's objection against Claim 6 of Set B, corresponding to Claim 7 as granted, is inadmissible since it goes beyond the extent to which the patent was opposed according to Rule 55(c), for the reasons set out in the "Zeolites/ICI" decision of 18 August 1988 (headnote published in OJ EPO 6/1989). It would, however, also have been unsuccessful on substantive grounds for the reasons already indicated in paragraph 3.3 above.

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 maintain the patent on the basis of the claims contained in Set B submitted on 16 June 1989.

The Registrar:

The Chairman: