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**Datasheet for the decision
of 26 August 2015**

Case Number: T 1636/14 - 3.3.10

Application Number: 04762301.2

Publication Number: 1663924

IPC: C07C29/62, C07C31/36

Language of the proceedings: EN

Title of invention:

METHOD OF PREPARING DICHLOROPROPANOLS FROM GLYCERINE

Patent Proprietor:

Spolek Pro Chemickou A Hutni Vyrobu, Akciova
Spolecnost

Opponents:

AKZO NOBEL CHEMICALS INTERNATIONAL B.V.
SOLVAY (SOCIETE ANONYME)
THE DOW CHEMICAL COMPANY

Headword:

Relevant legal provisions:

EPC Art. 100(c), 84
RPBA Art. 12(2), 13(1)

Keyword:

Main request - added subject-matter (yes)
Claims - clarity - auxiliary requests (no)

Decisions cited:

T 0823/96, T 0337/95

Catchword:



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Case Number: T 1636/14 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 26 August 2015

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 5 June 2014
revoking European patent No. 1663924 pursuant to
Article 101(3)(b) EPC.**

Composition of the Board:

Chairman P. Gryczka
Members: R. Pérez Carlón
 C. Schmidt

Summary of Facts and Submissions

- I. The appeal lies from the decision of the opposition division to revoke European patent No. 1 663 924.
- II. Three oppositions had been filed on grounds which included that of added subject-matter (Article 100(c) EPC).
- III. The opposition division concluded that the claims of the patent as granted as well as those of the two auxiliary requests then pending contained added subject-matter.
- IV. Under cover of a letter dated 29 July 2015 the appellant (patent proprietor) filed a main request and auxiliary requests I to XXIII. Auxiliary requests I to XVIII were subsequently withdrawn during the oral proceedings before the board, which took place on 26 August 2015 and during which auxiliary request XXIV was filed.

Claim 1 of the main request is identical to claim 1 of the patent as granted and reads as follows:

"A method of preparing the dichloropropanols 1,3-dichloro-2-propanol and 2,3-dichloro-1-propanol by hydrochlorination of glycerine and/or monochloropropanediols with gaseous hydrogen chloride with catalysis of a carboxylic acid at reaction temperatures in the range of 70-140°C, characterized in that said hydrochlorination is carried out solvent-free in at least one continuous reaction zone at atmospheric or elevated pressure and with continuous removing of the water of reaction by distillation at reduced pressure in distillation zone linked to the reaction

zone, the liquid feed containing at least 50% by weight of glycerine and/or monochloropropanediols."

In claim 1 of auxiliary requests XIX to XXIII, the feature "solvent-free" has been replaced by "without additional compounds".

Lastly, claim 1 of auxiliary request XXIV reads as follows:

"A method of preparing the dichloropropanols 1,3-dichloro-2-propanol and 2,3-dichloro-1-propanol by hydrochlorination of glycerine and/or monochloropropanediols with gaseous hydrogen chloride with catalysis of a carboxylic acid at reaction temperatures in the range of 70-140°C, characterized in that said hydrochlorination is carried out in at least one continuous reaction zone at atmospheric or elevated pressure and with continuous removing of the water of reaction by distillation at reduced pressure in distillation zone linked to the reaction zone, the liquid feed containing at least 50% by weight of glycerine and/or monochloropropanediols wherein the method is carried out without additional compounds."

V. The arguments of the appellant relevant for the decision were the following:

The feature "solvent-free" in claim 1 of the main request found a basis in the passage on page 3, lines 27-28 of the application as originally filed and in the implicit disclosure of the application as a whole, in particular taking into account page 2, line 9 to page 3, line 12. The declaration of Prof. Anderson, filed with the statement setting out the grounds of appeal, corroborated the fact that the skilled reader would

find this feature disclosed in the application as originally filed. For this reason, claim 1 of the main request did not contain subject-matter extending beyond that of the application as originally filed.

Auxiliary requests XIX to XXIII had been filed four weeks before the oral proceedings, which should be sufficient time for the respondents to consider them, in particular as the board had already informed the parties that it would only be dealing with the issues of added subject-matter and clarity.

Auxiliary request XXIV, filed during the oral proceedings before the board, was filed in response to an objection which arose for the first time during said proceedings and should thus be admissible, since the appellant should be given the possibility to address such an objection.

Lastly, the feature "without additional compounds", which was present in all the auxiliary requests, was clear since it excluded from the claimed method any compound other than those which are usually found as impurities in low-grade starting materials.

VI. Respondent 1 (opponent 1) did not file any arguments during the appeal proceedings.

VII. The arguments of respondents 2 and 3 (opponents 2 and 3) relevant for the decision were the following:

There was no basis, either implicit or explicit, in the application as originally filed for the feature "solvent-free", with the consequence that claim 1 of the main request contained added subject-matter.

Auxiliary requests XIX to XXIII had been filed just four weeks before the scheduled oral proceedings, thereby depriving the respondents of the time required to adequately prepare their cases. For this reason, these requests should not be admitted into the proceedings.

The feature "without additional compounds" could be interpreted in three technically sound ways all of which in agreement with the disclosure of the patent in suit, namely as (1) excluding every compound further to those explicitly mentioned in claim 1, (2) excluding compounds further to those which are usually found in low-grade starting materials and (3) excluding those compounds having a material impact on the operation of the process. For this reason alone, it could not be unambiguously established which subject-matter was claimed, so that claim 1 of all the auxiliary requests on file was not clear.

VIII. The final requests of the parties were the following:

- The appellant requested that the decision under appeal be set aside and that the case be remitted to the opposition division for further prosecution on the basis of the main request or - alternatively - on the basis of one of the auxiliary requests XIX to XXIII, filed with letter dated 29 July 2015 or the auxiliary request XXIV, filed during the oral proceedings before the board.
- The respondents requested that the appeal be dismissed.

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

Reasons for the Decision

1. The appeal is admissible.

Main request, amendments:

2. Claim 1 of the main request contains the feature "said hydrochlorination is carried out solvent-free".

2.1 As a basis for this feature, the appellant relied on the passage on page 3, lines 27-28 of the description and on the implicit disclosure in the application as originally filed, reflected for example in the passages on page 2, line 9 to page 3, line 12. In its opinion, the declaration of Prof. Anderson filed with the statement setting out the grounds of appeal corroborated the appellant's reading of the application.

2.2 In order to determine whether the feature "solvent-free" represents added subject-matter, it has to be examined whether it provides technical information which a skilled person would not have objectively and unambiguously derived, either explicitly or implicitly, from the application as originally filed.

Implicit disclosure means no more than the clear and unambiguous consequence of what is explicitly disclosed (see T 823/96, point 4.5 of the reasons, not published in OJ EPO), and should not be construed to mean matter that is not part of the content of the technical information provided by a document, but may be rendered obvious on the basis of that content.

- 2.3 The passage on page 3, lines 27-28, which refers back to the method of preparing dichloropropanols disclosed in its preceding paragraph, reads:

"This method does not need any additional compounds like solvents to reach industrially acceptable yields."

This passage discloses that the method "does not need any additional compounds" and cites, as an example of said components, solvents. It discloses as an essential condition the absence of any additional compound, whereas the absence of solvents, although a necessary condition, is not a sufficient one.

Thus, the feature solvent-free, which allows the presence of further compounds in the claimed method provided that they are not solvents, represents technical information which was not disclosed in the afore-mentioned passage.

- 2.4 The appellant argued that the feature "solvent-free" was implicitly disclosed in the application as originally filed, as understood by the skilled reader.

The board agrees with the reading of the application put forward by Prof. Anderson, who concludes that it discloses a hydrochlorination reaction "run neat" (see point 2.10 of his declaration). Prof. Anderson further states that "neat" implies "solvent-free", which is not questioned, either.

However, "neat" implies not only that the reaction is carried out "solvent-free", but also that there is an absence of any additional compound, in line with the disclosure on page 3, lines 26-27 of the application, since a solvent-free reaction containing a further

component which is not a solvent (a further catalyst, a stabiliser, a scavenger, molecular sieves, to cite some examples) will not be carried out "neat". Thus, the reading of the application as a whole fails to implicitly disclose to the skilled reader the solvent-free method subject-matter of claim 1.

- 2.5 With respect to the implicit disclosure on page 2, line 9 to page 3, line 12 of the application as originally filed, these passages refer to the state of the art and, for this reason alone, cannot provide a basis for the feature "solvent-free".

Notwithstanding the above, only the process (of the prior art) disclosed on page 2, lines 25-33 and on page 3, lines 1-3 are carried out in the presence of various solvents. Page 3, lines 9-10 discloses that the use of "significant portions" of "inert solvents" is undesirable, but this does not amount to disclosing a process in the complete absence of any kind of solvent, as required by the feature "solvent-free" in claim 1.

- 2.6 The appellant further argued that no suggestion or hint to the use of a solvent could be found in the application as originally filed.

However, even though the application as originally filed does not disclose that solvents are required, claim 1 of the main request states that they are not to be used, which is a different teaching.

This argument of the appellant is thus dismissed.

- 2.7 The appellant also argued that the skilled reader would immediately recognise that the key advantage of the invention was that the claimed method could be carried

out without solvents.

However, the application as originally filed does not formulate the problem it aims to solve as avoiding the use of solvents but, at the most, avoiding the use of a large amount of solvents of a specific type (see page 3, lines 13-16).

This argument of the appellant is also unsuccessful.

- 2.8 For these reasons, it is concluded that the feature "solvent-free" does not find the required basis in the application as originally filed, with the consequence that the main request is not allowable.

Auxiliary requests XXII, XXIII and XXIV, admissibility:

3. The purpose of an appeal is mainly to give an adversely affected party the possibility of challenging the decision of the first instance. According to Article 12(2) RPBA, the statement of grounds of appeal shall contain an appellant's complete case. If, at a later stage of the proceedings, the appellant wants other requests to be considered, admission of these requests into the proceedings is a matter of discretion for the board of appeal (Article 13(1) RPBA).
4. Auxiliary requests XXII and XXIII were filed under cover of a letter dated 29 July 2015, four weeks before the oral proceedings before the board.

The appellant filed on that date 24 requests, of which 15 were fresh requests and the remaining 9 were identical to those filed with the grounds of appeal.

Respondents 2 and 3 argued that none of these 15 fresh

requests, 13 of which were subsequently withdrawn, should be admitted into the proceedings, as they were belated, addressed objections already raised during the opposition proceedings and had been filed without any explanation as to why they could overcome any deficiency present in those previously on file.

The 24 requests filed on 29 July 2015 amount to almost every possible combination of two features, being each of them selected from among five alternatives. From these alternatives, only two with respect to the first feature and two with respect to the second were not present in the requests filed with the grounds of appeal.

The board had already informed the parties that it would deal with the issues of added subject-matter and clarity only, and would remit the case to the opposition division for further prosecution if any other issue needed to be examined.

Under these circumstances, the respondents did not have to prepare a complete argumentation on every possible issue arising from the amendments carried out. Instead, they had to prepare their positions on added subject-matter and clarity, for which they should not have required longer than the four weeks which were available.

For these reasons, the board makes use of its discretion under Article 13(1) RPBA to admit auxiliary requests XXII and XXIII into the proceedings.

5. Auxiliary request XXIV was filed towards the end of the oral proceedings before the board. This request, however, was filed in response to objections which were

raised for the first time during the oral proceedings and against which the appellant could not have reacted earlier. Respondents 2 and 3 had no objection to its admission.

The board makes use of its discretion to admit auxiliary request XXIV into the proceedings (Article 13(1) RPBA).

Auxiliary requests XIX-XXIV, clarity:

6. Article 84 in conjunction with Rule 43(1) EPC stipulates that the claims must be clear and must define the matter for which protection is sought in terms of the technical features of the invention. These requirements serve the purpose of ensuring that the public is not left in any doubt as to which subject-matter is covered by a particular claim and which is not (see T 337/95, OJ EPO 1996, 628, Reasons 2.2 to 2.5).
7. Claim 1 of auxiliary requests XIX-XXIV contains the feature "without additional compounds", which is not present in claim 1 as granted and is taken from the description of the patent in suit.

The parties provided different interpretations of this feature during the written appeal procedure and at the oral proceedings before the board. These interpretations are summarised as follows:

- 7.1 "Without additional compounds" could be interpreted as excluding from the claimed method the presence of every compound other than those explicitly mentioned in claim 1, i.e. the reaction media may only contain glycerine, dichloropropanols, monochloropropanediols, HCl,

carboxylic acid and water.

This interpretation makes technical sense, since the claimed method can be carried out in the absence of any compound other than those explicitly mentioned.

This interpretation is, further, in agreement with the disclosure of the patent in suit, since examples 1-3 are carried out in the absence of any compound other than those mentioned above.

- 7.2 "Without additional compounds" could, as argued by the appellant during the oral proceedings before the board, also be regarded as excluding any additional compound further to those which are usually found in low-grade starting materials.

This interpretation also makes technical sense, since there is no apparent reason why low-grade glycerine would not be a suitable starting material for the claimed method.

This interpretation is also in line with the general disclosure of the patent in suit, taking into account the fact that claim 1 refers to a feed containing "at least 50% by weight of glycerine and/or monochloropropanediols", which, conversely, indicates that there can be up to a 50% by weight impurities in the starting material, and that paragraph [30] mentions that glycerin of different purity grades may be used, without disclosing that any previous purification would be required.

- 7.3 Lastly, as submitted by the appellant in the grounds of appeal (paragraph 11.3), the feature "without additional compounds" should be construed narrowly to

exclude only those compounds having a material impact on the operation of the process.

This is also a sensible interpretation from the technical viewpoint, despite the difficulty in determining the boundaries of the requirement for "a material impact on the operation".

- 7.4 It is apparent from the above that the skilled reader could arrive at three different, technically sound interpretations of the feature "without additional compounds", all of them in line with the disclosure of the patent in suit. It is thus not clear which of these three interpretations apply to the feature introduced in claim 1, with the consequence that the subject-matter of claim 1 lacks clarity, under Article 84 EPC.

None of auxiliary requests XIX to XXIV is thus allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



C. Rodríguez Rodríguez

P. Gryczka

Decision electronically authenticated