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D E C I S I O N
of 12 December 1996

Case Number: T 0279/93 - 3.3.1
Application Number: 81108162.9
Publication Number: 0051753
IPC: C07D 251/70

Language of the proceedings: EN

Title of invention:
Synthesis of hydroxy-functional melamine derivatives

Patentee:
AMERICAN CYANAMID COMPANY

Opponent:
BASF Aktiengesellschaft

Headword:
Melamine derivatives/AMERICAN CYANAMID

Relevant legal provisions:
EPC Art. 54(1)(2), 123(3)

Keyword:
"Change of category (allowed) - novelty (no - unambiguous
implicit disclosure)"

Decisions cited:
G 0002/88; T 0059/87; T 0550/88

Catchword:

1. A claim to the use of a compound A in a process for preparing compound B has no broader scope than a claim to a process for preparing compound B from compound A (see point 4).
2. The use of a compound A in a process for preparing compound B in order to reduce the formation of impurities is not necessarily a functional technical feature in the sense of decision G 2/88, and does not, therefore, in all circumstances confer novelty to the subject-matter of a claim containing it (points 5.3 to 5.5)



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Case Number: T 0279/93 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 12 December 1996

Appellant: AMERICAN CYANMID COMPANY
(Proprietor of the patent) One Cyanamid Plaza
Wayne, NJ 07470-8426 (US)

Representative: Wächtershäuser, Günter, Prof. Dr.
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Respondent: BASF Aktiengesellschaft, Ludwigshafen
(Opponent) -Patentabteilung - C6-
Carl-Bosch-Strasse 38
D-67056 Ludwigshafen (DE)

Representative: -

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 11 January 1993
revoking European patent No. 0 051 753 pursuant
to Article 102(1) EPC.

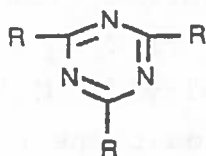
Composition of the Board:

Chairman: A. J. Nuss
Members: R. K. Spangenberg
S. C. Perryman

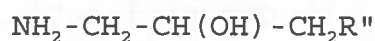
Summary of Facts and Submissions

I. European patent application No 81 108 162.9 was filed with four claims reading:

"1. In a process for preparing hydroxy terminated melamine derivatives by reacting an alkanolamine with a melamine compound of the formula



wherein each R is selected from the group consisting of alkyl (C₁-C₂₀), cycloalkyl (C₅-C₈), aryl (C₆-C₁₂), NH₂ and NHR', wherein R' is alkyl (C₁-C₂₀), cycloalkyl (C₅-C₈) or aryl (C₆-C₁₂), and at least one R is NH₂, the improvement comprising reducing the formation of isomelamine impurities by using an alkanolamine of the formula



wherein R'' is hydrogen, alkyl (C₁-C₂₀) or phenyl.

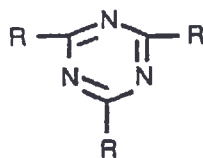
2. The process of Claim 1 wherein each R is NH₂.

3. The process of Claims 1 or 2 wherein R'' is hydrogen.

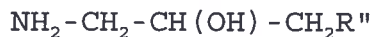
4. The process of Claim 1 wherein the reaction further contains an alkyl amine, arylamine, ether amine, alkyl diamine, or aryl diamine."

European Patent 0 051 753 was granted on this application with two claims reading:

1. A process for preparing hydroxy-functional melamine derivatives, comprising reacting an alkanolamine with a melamine compound of the formula



wherein each R is selected from the group consisting of alkyl(C₁-C₂₀), cycloalkyl(C₅-C₈), aryl(C₆-C₁₂), NH₂ and NHR', wherein R' is alkyl(C₁-C₂₀), cycloalkyl(C₅-C₈) or aryl(C₆-C₁₂), and at least one R is NH₂, with an alkanolamine of the formula



wherein R'' is hydrogen, alkyl (C₁-C₂₀) or phenyl.

2. The process of Claim 1 wherein each R is NH₂.

II. The patent was opposed. By its decision dated 11 January 1993 the Opposition Division revoked the patent, considering a main and two auxiliary requests. The main request related to a process for preparing hydroxy-functional melamine derivatives, comprising reacting an alkanolamine with a melamine compound, characterised in that 1-amino-2-propanol is selected as the alkanolamine and reacted with melamine.

The following document was cited:

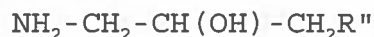
(1) US-A-3 244 713

It was held that the subject-matter of Claim 1 of the main request lacked novelty, since document (1) provided an implicit but unambiguous technical teaching which fell within the ambit of that claim, whereas Claim 1 of the first auxiliary request did not meet the

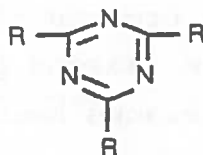
requirement of Article 123(3), and the subject-matter of Claim 1 according to the second auxiliary request was found to lack inventive step.

III. The proprietor of the patent appealed. Together with the statement of grounds of appeal the Appellant filed an amended set of three claims and requested that the decision under appeal be set aside and the patent be maintained on the basis of this set of claims. The claims of this set, after correction of a clerical error, read as follows:

"1. The use of an alkanolamine of the formula



wherein R'' is hydrogen, alkyl (C₁-C₂₀) or phenyl, in a process for preparing hydroxy-functional melamine derivatives by reacting an alkanolamine with a melamine compound of the formula



wherein each R is selected from the group consisting of alkyl (C₁-C₂₀), cycloalkyl (C₅-C₈), aryl (C₆-C₁₂), NH₂ and NHR', wherein R' is alkyl (C₁-C₂₀), cycloalkyl (C₅-C₈) or aryl (C₆-C₁₂), and at least one R is NH₂, in order to reduce the formation of isomelamine impurities".

2. The use according to Claim 1 characterized in that R'' is hydrogen.

3. The use according to Claim 1 characterized in that each R is NH₂."

In support of his request, the Appellant substantially argued that document (1) did not disclose the technical effect of reducing the formation of isomelamine

impurities, which is now a functional technical feature of the present Claim 1. In view of decisions G 2/88 (OJ EPO 1990, 93) and T 59/87 (OJ EPO 1991, 56), so he submitted, novelty of the claimed subject-matter was therefore established.

- IV. The Respondent (the Opponent) requested that the appeal proceedings be closed, and, by way of auxiliary request, that the appeal be dismissed.

In respect of his main request, he submitted that according to the information available to him the patent in suit appeared to have lapsed in all designated Contracting States. In respect of his auxiliary request he substantially argued that the present change of category was not from a claim to a product to a claim to the use of this product, so that the decisions relied upon by the Appellant were not relevant. Moreover, in his opinion the amended claims remained in substance process claims and, therefore, lacked novelty for the reasons given in the decision under appeal, these reasons being no longer contested by the Appellant.

- V. Oral proceedings were appointed, following auxiliary requests of both parties. After the summons to these proceedings, both parties withdrew their respective auxiliary requests and informed the Board that they would not attend. In a communication pursuant to Article 11(2) of the Rules of procedure of the Boards of Appeal the Board gave its preliminary view on the proper construction of the present Claim 1 and drew the parties' attention to certain issues arising from their written submissions, concerning the possibility of another construction of the present Claim 1 which might

give rise to objection under Articles 123(2) and 84 EPC, and indicated that the oral proceedings set for 12 December 1996 would still take place, even though both parties had withdrawn their requests.

- VI. Accordingly, both parties, although duly summoned, were not represented at the oral proceedings which took place on 12 December 1996. At the end of these proceedings the decision to dismiss the appeal was announced.

Reasons for the Decision

1. The appeal is admissible.
2. The Board was unable to establish that the patent in suit had indeed lapsed in all designated Contracting States (BE, DE, FR, GB, IT, NL), as alleged by the Respondent. In particular, no such information is derivable from the EPO patent register, which only shows that the patent has lapsed, according to data supplied by the Contracting States, for BE, DE, FR and GB. Further, as pursuant to Article 64 EPC the European patent shall be deemed not to have had, as from the outset, the effects specified in Articles 64 and 67, to the extent that the patent has been revoked in opposition proceedings, success in this appeal might provide the appellant with valuable rights relating to the years before the patent lapsed in the various countries. In the absence of a withdrawal of the appeal by the patentee, the Board sees no basis for discontinuing the appeal proceedings. No communication pursuant to Article 113 EPC is necessary on this, as the result of the appeal is that the patent stands revoked, and the Board can see no legal interest of the Respondent in whether this result is achieved by the

Board deeming the appeal to be discontinued in accordance with the Respondent's main request or by the Board dismissing the appeal on the substantive issues in accordance with the Respondent's auxiliary request.

3. Present Claims 1 to 3 are based upon the process claims 1 to 3 as originally filed. The amended claims therefore meet the requirement of Article 123(2) EPC. Although the Board does not consider the re-introduction of present Claim 2, which has no counterpart in the claims as granted, at this stage of the proceedings as "necessary and appropriate" in order to meet a ground of opposition pursuant to Article 100 EPC (see decision T 550/88, OJ EPO 1992,117), it has not raised an objection on this basis, the appeal failing for other reasons.

4. Present Claim 1 is directed to the use of a first compound in a process for preparing a second compound.

It has already been stated in decision G 2/88 (see point 2.2) that there are basically two different types of claim, namely a claim to a physical entity (e.g. product, apparatus) and a claim to a physical activity (e.g. method, process, use) and (see point 2.5) that the technical features of a claim to an activity are the physical steps which define such activity. Here the Board considers that Claim 1 originally filed, Claim 1 as granted and Claim 1 now put forward on appeal all relate to the same physical steps, and so the claims are of the same scope. On this view, therefore, the scope of protection conferred by this claim is not broader than that conferred by the granted process claim, and the requirement of Article 123(3) EPC is thus also met.

If , however, the Board had formed the view that the feature in the claim "use...in order to reduce the formation of isomelamine impurities" required not only choosing a particular alkanolamine to make the desired end product, but also some restriction on the process conditions for example by stopping the conversion before it had gone to completion for the particular reactants, then the Board would have considered that Claim 1 did not meet the requirements of Article 123(2) EPC, as no clear and unambiguous teaching of any such additional restriction can be found in the application as originally filed. Examples 1 and 2 do not teach that the conversion cannot go to completion, but rather that the choice of particular alkanolamines itself is already sufficient to reduce the formation of undesired isomelamine impurities compared to other cases where less suitable alkanolamines have been used as starting material.

Further, if the latter view were to be considered seriously arguable, the Board would also consider this amended claim as violating Article 84 EPC, because it would not be clear whether or not other technical measures than the selection of the starting alkanolamines were required by the claim.

5. The issue that remains to be decided in this appeal is that of the novelty of the subject-matter of Claims 1 to 3. Novelty of that subject-matter was contested in respect of document (1).
- 5.1 Document (1) relates to hydroxy substituted triazines and the preparation thereof. The Appellant no longer contests the finding in the decision under appeal that some of the hydroxy-functional melamines obtainable by the claimed process are also specifically disclosed products of the process described in document (1) (see the products listed in column 6, lines 52 to 53, 59 and

64 to 65), and that the disclosure of these products unambiguously implies the disclosure of the use of 1-amino-2-propanol as starting material (see column 1, line 43 to column 2, line 30).

5.2 The Appellant has submitted that the present claims are no longer directed to the preparation of hydroxy functional melamine derivatives in general, but to the use of the alkanolamines specified therein for reducing the formation of isomelamine impurities. According to the Appellant, this purpose, even if it might have been inherently attained by following the teaching of document (1), should render the subject-matter of the present claims novel, since, in application of the reasoning in decision G 2/88, inherency did not destroy the novelty of this new use, which has to be regarded as a functional technical feature of the present claims.

5.3 However, the facts of the present case differ significantly from those underlying decisions G 2/88 and T 59/87. The Board is unable here to find that the words "in order to reduce the formation of isomelamine impurities" require any new physical activity not already required by the old use of using the alkanolamine with the melamine compound to make the desired end product. There is thus no new technical effect in the sense required by decision G 2/88.

5.4 The Board acknowledges that document (1) does not state that the use of the particular alkanolamine and melamine compound produce less isomelamine impurities than other combinations also suggested in document (1), nor that the colour can be kept lighter. But noticing that an old product has the properties of less isomelamine impurities or, as a consequence thereof, a lighter colour is a mere discovery. To convert this into a patentable invention, and to show the

characteristic of a new technical effect as required by decision G 2/88, the use referred to in the claim would have been some new use of the product which exploits the discovery that the isomelamine impurities are low and that therefore the colour is light for some new technical purpose. However the patent in suit discloses no such new use, but merely gives the person skilled in the art reasons for preferring one known product over other known ones for the uses for which it has already been suggested. Giving such reasons for preferring one known compound is not a new industrial application.

5.5 Put another way, the additional information contained in the patent in suit does not teach the person skilled in the art to do something which would not have been done without knowing the content of the patent in suit.

5.6 Thus Claim 1 now put forward does not satisfy Article 54 EPC, and the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman

E.Görgmaier

A. Nuss

