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Aktenzeichen / Case Number / N^o du recours : T 175/89 - 3.3.2

Anmeldenummer / Filing No / N^o de la demande : 84 303 879.5

Veröffentlichungs-Nr. / Publication No / N^o de la publication : 132 939

Bezeichnung der Erfindung: Blowing agent composition

Title of invention:

Titre de l'invention :

Klassifikation / Classification / Classement : C08J 9/06

ENTSCHEIDUNG / DECISION

vom / of / du 29 March 1990

Anmelder / Applicant / Demandeur : Schering Agrochemicals Limited

Patentinhaber / Proprietor of the patent /
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence : Blowing agent/SCHERING

EPÜ / EPC / CBE Article 54(1)(2), 111(1)

Schlagwort / Keyword / Mot clé : "Novelty (yes - after amendment)"
"Remittance to first instance"

Leitsatz / Headnote / Sommaire



Case Number : T 175/89 - 3.3.2

DECISION
of the Technical Board of Appeal 3.3.2
of 29 March 1990

Appellant : Schering Agrochemicals Limited
Hauxton
Cambridge CB2 5HU (GB)

Representative :

Decision under appeal : Decision of Examining Division 013
of the European Patent Office
dated 9 December 1988 refusing
European patent application
No. 84 303 879.5 pursuant to
Article 97(1) EPC

Composition of the Board :

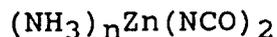
Chairman : P. Lançon
Members : P. Krasa
C. Holtz

Summary of Facts and Submissions

- I. European patent application 84 303 879.5, filed on 8 June 1984 and published on 13 February 1985 with the publication number 132 939, was refused by the decision of the Examining Division of 9 December 1988. The decision was based on Claims 1 to 10 for the designated States except AT and Claims 1 to 10 for AT.
- II. The ground for refusal was that the subject-matter of Claims 1, 4, 7 and 8 for the designated States except AT and of Claims 5 and 7 for AT were lacking novelty in view of BE-A-371 947 (1). In addition the subject-matter of Claim 9 for the designated States except AT and of Claim 8 for AT was said to lack inventive step in view of DE-B-1 258 082 (2).
- III. An appeal was lodged together with the Statements of Grounds of Appeal on 24 January 1989, the respective fee having been paid already on 20 January 1989. After a communication from the Board that the new claims filed together with the appeal were probably also open to an objection of lack of novelty in view of Gmelins Handbuch der Anorganischen Chemie, ZINK, Supplemental Volume, 8th Edition, 1956, pp. 985, 986, introduced by the Board, the Appellant filed on 28 February 1990 two new sets of claims, one for all the designated States except AT and one for AT, respectively.

The set of claims, for all designated States except AT, reads:

"1. The zinc compounds of the formula:

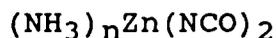


where n, which may be fractional, is from 0.5 to 4.

2. The zinc compounds according to claim 1 where n is from 1.5 to 2.5.
3. The zinc compound according to claim 2 where n is 2.
4. A compound according to any of claims 1 to 3 which is at ambient temperature.
5. The use as an accelerator or activator in the vulcanisation of rubber of one or more compounds according to any of claims 1 to 3.
6. A composition for use in the acceleration or activation in the vulcanisation of rubber, which contains one or more compounds according to any of claims 1 to 3.
7. A blowing agent activator composition which contains one or more compounds according to any of claims 1 to 3.
8. An activated blowing agent composition which contains a thermally-decomposable blowing agent in association with one or more compounds according to any of claims 1 to 3, said composition being at ambient temperature.
9. A composition according to claim 8 in which the blowing agent is azodicarbonamide."

The set of claims for AT reads:

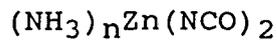
- "1. The use as an accelerator or activator in the vulcanisation of rubber of one or more zinc compounds of the formula:



where n, which may be fractional, is from 0.5 to 4.

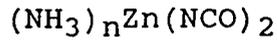
2. The use according to claim 1 where n in the zinc compound is 1.5 to 2.5.
3. The use according to claim 2 where n in the zinc compound is 2.
4. A composition for use in the acceleration or

activation in the vulcanisation of rubber, which contains one or more zinc compounds of the formula:



where n, which may be fractional, is from 0.5 to 4.

5. A blowing agent activator composition which contains one or more zinc compounds of the formula:



where n, which may be fractional, is from 0.5 to 4.

6. A composition according to claim 4 or claim 5 where n in the zinc compound employed is 2."

- IV. The Appellant requested that the decision under appeal be set aside and that the patent be granted on the basis of the claims as submitted on 28 February 1990.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is admissible.
2. Amendments (Art. 84 and 123(2) EPC)

Claims for all designated States except AT:

Claims 1 to 3 find their support in the application documents as originally filed on page 2, lines 15 to 27 and on page 4, lines 18 to 22. The additional feature of Claim 4 "at ambient temperature" is implicitly disclosed e.g. in Example 1 from which it is clear for the skilled person that the products concerned can be handled at ambient temperature and, thus, the original application teaches the existence of these products also at this temperature.

Claims 5 to 9 find their support in original Claims 2 and 7 to 9 together with page 3, lines 1 to 15.

The said passages of the application documents as originally filed support also the Claims 1 to 6 for AT.

All the claims, including Claims 4 and 8, are clear and supported by the description.

Thus, no objection arises under Articles 84 and 123(2).

3. Novelty

3.1 Claims 1 to 4 for all designates States except AT

There is no citation before the Board which discloses the subject-matter of Claim 1.

The use of blowing compositions comprising ZnO and urea for the production of foamed plastics or sponge rubber is known from several citations. (2) is representative. According to the claim of (2) a catalyst mixture comprising 0.5 to 5.0 parts by weight of ZnO, 0.02 to 1.5 parts by weight of dibutyltin distearate and 0.1 to 5.0 parts by weight of urea is used together with azodicarbonamide as blowing agent for the manufacture of foamed polyvinylchloride. Thus it has to be investigated whether or not a compound of Claim 1 is formed in the course of such use and if the formation - the possibility of which was indicated in the Examining Division's first communication of 27 July 1987 under No. 3.4 - were to destroy the novelty of the subject-matter of Claim 1. (see T 12/81, Reasons for the Decision No. 13, OJ EPO 1982, 296, 303). The reaction system of (2) which comprises ZnO and urea, is a rather complex poly-component system with several potential reaction partners either for the ZnO or

the urea, e.g. dibutyltin distearat and azidocarbonamide. Thus, in the absence of experimental proof the hypothetical possibility of the formation of a compound of Claim 1 during the manufacture of foamed plastics according to (2) is not sufficient in this case to establish the factual existence of such a compound. There is no teaching (either explicit or implicit) in (2) that compounds of present Claim 1 are necessarily and unavoidably formed according to (2). This finding is supported by the fact that in the examples of (2) temperatures are used in the foaming process which are, according to the Appellant, above the upper limit of the temperature possible (i.e. above 180°C) for the formation of the compounds of Claim 1. There is no information available which would allow rebuttal of this statement (Appellant's letter to the Examining Division, received 11 November 1987).

Similar considerations apply for US-A-3 502 632 (4) and NL-C-31 894 (5):

(4) discloses the use of urea and particular urea n-paraffin hydrocarbon adducts together with ZnO and a plurality of other components in the manufacture of sponge rubber (see (4), Examples 4 to 9 in columns 6 to 9; while the third table in column 9 has no respective heading it seems to be clear that it actually represents Example 9).

(5) is concerned with the manufacture of micro-porous rubber using complex mixtures for the vulcanisation comprising inter alia ZnO and urea (see (5), page 1, lines 71 to 90 and page 2, lines 24 to 39). Thus, in view of the complex product mixtures used it cannot be derived either from (4) or from (5) that a compound of Claim 1 was necessarily formed, when following the respective teachings of (4) and (5).

In view of these findings the Board holds that the subject-matter of Claim 1 and of dependent Claims 2 to 4 (for all designated States except AT) is novel and that it is not necessary to further investigate whether or not a compound of Claim 1 could have been isolated from the reaction mixtures according to (2), (4), or (5).

- 3.2 Claims 6 to 9 for all designated States except AT and Claims 4 to 6 for AT.

These claims are directed to compositions of matter comprising the novel compounds of Claim 1 and, thus, are also novel.

- 3.3 Claim 5 for all designated States except AT and Claims 1 to 3 for AT.

These claims are directed to the use of novel compounds and, thus, are also novel.

4. Claims 4 and 8 for the designated States except AT contain as a feature that the compounds concerned shall be "at ambient temperature".

As the Examining Division correctly states (see point 4 of the Reasons for the Decision) such temperature parameter had to be ignored when evaluating novelty of the then pending sets of claims: This is in line with the decision of another Board according to which the novelty of a product can be evidenced, in case of need, by e.g. demonstrating differences in the properties of the product (when compared with products of the state of the art); cf. T 205/83, OJ EPO 1985, 363, 367, Reasons for the Decision, point 3.2.1. This decision further states: "Evidence of novelty, however, cannot involve properties which are not

attributable to the substance parameters of the product itself, i.e. which are not inherent in it". (see T 205/83, Reasons for the Decision, point 3.2.3; OJ loc. cit, 368, 369). There cannot be any doubt that in the present case a temperature is no inherent parameter of the product but rather characterises its surrounding. Therefore, the feature "at ambient temperature" would not have been apt to render the respective products novel had there been a non-novelty objection to be raised.

However, as the compounds of the present application were found to be novel anyway this question is of no relevance in the present case.

5. Inventive step

Although the Examining Division did consider the issue of inventive step, it did not have an opportunity to evaluate the present sets of claims in respect to inventive step.

Especially, nothing can be taken from the file which reveals why the Examining Division deemed the proof of an unexpected effect to be necessary and why the asserted saving in zinc (see page 8 of the application, Example 8), was not taken into consideration.

In view of this situation the Board holds that a full examination on the basis of the problem and solution method should take place before the Examining Division. Under Article 111(1) this case is therefore remitted to the first instance.

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Examining Division for further prosecution on the basis of the two sets of claims filed 28 February 1990.

The Registrar:



M. Beer

The Chairman:



P. Lançon

