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Aktenzeichen / Case Number / N° du recours : W 07/85

Anmeldenummer / Filing No / N° de la demande : International application

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Bezeichnung der Erfindung: High temperature resistant electrically
Title of invention: insulating coating powder
Titre de l'invention :

Klassifikation / Classification / Classement : C09 D3/58

ENTSCHEIDUNG / DECISION

vom / of / du 5 June 1987

Anmelder / Applicant / Demandeur : Minnesota Mining and
Manufacturing Company

Patentinhaber / Proprietor of the patent /
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence : "Insulating powder"

EPÜ / EPC / CBE Art. 17(3)(a), Rules 40(1), 40(2)(c) PCT

Kennwort / Keyword / Mot cle : Art. 82 and Rule 30 EPC

"Unity of invention - Mixture and component"

Leitsatz / Headnote / Sommaire

"There is sufficient technical information to justify a prima facie finding of unity of invention between a claim to a mixture, and a claim to one essential component of that mixture or a narrowly defined version thereof."



Case Number : W 07/85
International Application No. PCT/US 85/00 882

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 5 June 1987

Applicant : MINNESOTA MINING AND MANUFACTURING COMPANY
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Subject of the Decision : Protest according to Rule 40.2(c) of the
Patent Cooperation Treaty made by the
applicants against the invitation
(payment of additional fee) of the
European Patent Office (branch at The
Hague) dated 6 September 1985

Composition of the Board :

Chairman : P. Lançon
Member : G. Szabo
Member : G. Paterson

Summary of Facts and Submissions

I. The Applicants filed International patent application PCT/US 85/00882 on 13 May 1985. The EPO was the designated office in the sense of Article 2 (xiii) PCT.

II. On 6 September 1985, the EPO acting as International Search Authority (ISA) sent to the Applicants an Invitation to pay an additional search fee in accordance with Article 17(3)(a) and Rule 40(1) PCT. The Invitation indicated that the ISA considered that the above-referred application does not comply with the requirements of unity of invention, specifying two different subjects, as follows:

- Claims 1-30: Powder for electrically insulating coating based on a blend of
 - (a) epoxy terminated compound based on hydantoic diepoxide, and
 - (b) acid terminated polyester; and

- Claim 31: Specific adduct based on hydantoic diepoxide, i.e. a mixture of compounds of formulae (III) and (IV).

The Invitation did not specify the reasons for its aforesaid findings.

III. With their letter of 1 October 1985 (received 7 October 1985), the Applicants paid the additional search fee under protest (Rule 40(2)(c) PCT) and asserted that Claim 31 is closely related to the subject-matter of Claims 1-30. For instance, Claim 7 claims a powder using as ingredient (a) a composition as described in Claim 31. A search in respect of Claim 7 would almost certainly reveal prior art relevant to Claim 31.

Reasons for the Decision

1. The protest complies with Rule 40(2)(c) PCT and is, therefore, admissible.

2. The ISA has made clear in its Invitation that it considers the two subjects specified above as not so linked to form a single general inventive concept, but contrary to the requirements of Rule 40(1) PCT it failed to specify in the Invitation itself or in an Annex thereto, the reasons for its findings. Other Boards of the EPO have already decided (cf. W 04/85 "Heat exchanger", and W 07/86 "Lithium salts", OJ 2/1987, 63 and 67) that the provision of reasons in such an Invitation pursuant to Art. 17(3)(a) and Rule 40(1) PCT is an essential prerequisite for this to be legally effective. Only in certain "straightforward" cases where the list of claimed subject-matters itself already makes the reasons clear, i.e. manifestly obvious, why it is considered that the various claims lack unity, could express reasoning be disposed of.

3. In the present instance, no such exceptional "straight-forward" distinctions between the above mentioned two claimed subject-matters could be immediately and necessarily recognised. The subject-matter of Claim 31 could be part of, and therefore be used for, the preparation of certain embodiments covered by Claims 1 to 30, in particular Claim 7. In view of this relationship it cannot be concluded without further consideration that the subject-matters are unrelated to an extent that the possibility of being linked as to form a single general inventive concept must be excluded. For this reason alone the Invitation must be set aside for lacking legal basis because it contravenes the requirements of Rule 40(1) PCT.

However, in the present case, the Board also intends to consider the technical issues which determine the a priori unity of the inventions claimed.

4. Claims 1 to 30 relate to powders for application to provide electrical coatings which comprise a blend of two components. The first (a) component is an "epoxy-terminated compound based on hydantoic epoxide", and there is a second (b) component which is an aromatic dicarboxylic acid derivative. Among the innumerable variants representing the (a) component, a particular mixture of hydantoic diepoxide derivatives is most preferred and claimed as such in Claim 31. In fact, Claim 7 is a version of Claim 1 limited to the use of the same most preferred (a) component defined in that Claim 31.
5. The subject-matter of Claim 31 is, in effect, a particular element of the blends defined in any one of the Claims 1 to 15. If one considers Claim 4 and Claim 18-30, which rely on a particular preparation step for the blend by dissolving the adduct of hydantoic diepoxide and an aromatic dicarboxylic acid imide in hydantoic diepoxide (as a solvent), it is possible to recognise that the subject-matter of Claim 31, i.e. the mixture of compounds of formula (III) and (IV) again falls within the definitions and acts as starting material or intermediate in the step of dissolution.
6. As to the principles which govern the question of unity, the relevant Rule 13(1) and 13(2) PCT correspond exactly to Article 82 and Rule 30 EPC, respectively. It is first stated that the inventions should be so linked as to form a single general inventive concept. Furthermore, the other provisions for instance recognise the unity of matters such as a product, its process of preparation and, in addition, the "means specifically designed for carrying

out the process" (cf. Rule 13(2)(iii) PCT and Rule 30(c) EPC). The appropriate jurisprudence of the Boards of Appeal in the EPO is, therefore, relevant to such and similar situations.

7. In decision T 57/82, "Copolycarbonates", (OJ 8/1982, 306), the Chemical Board stipulated that the new chemical end products and new intermediates for the preparation of the same, should have unity within the meaning of Article 82 EPC, if these subject-matters were "technically interconnected" and were thus integrated into a single overall concept by being orientated towards the end products. In a subsequent decision (T 110/82, "Benzylesters", OJ 7/1983, 274), the same Board further suggested that in such situations the unity was in consequence of the fact that the intermediate and end products were technically interconnected in view of "the incorporation of an essential structural element" (emphasis added), of the intermediate "into the end product".

8. In the present case, the preferred mixture of specific hydantoic epoxide derivatives of formulae (III) and (IV) is incorporated in the powder according to Claims 1 to 15, as a component (a) by blending with the component (b). Thus the suggested derivatives provide an essential element of the powder which is a composite product. If unity may well prevail in cases of chemical intermediates and end product although, as is often the case, only a part of the intermediate structure is actually incorporated, the more might the intact components and the corresponding compositions as a mixture be considered as technically interconnected by incorporation. The former are not even destroyed when the admixture is prepared and

fully retain their properties and functions in the product, unlike typical intermediates which lose their identity in the process.

9. The preferred combination of compounds according to formulae (III) and (IV) is not a mere optional ingredient of the mixture but an essential feature thereof. In addition it is not a minor component in the present case but a substantial part of the blend (cf. Claims 6 and 13 referring to excess on component (b)) and fully contributes to its function. In addition, no other use for the particular component appears in the disclosure. As regards the circumstance that the scope of the subject-matter of Claim 31 is only co-extensive with that of Claim 7, and not with the broader Claim 1, this is not relevant. The fact that the applicant refrains from claiming component (a) of the combination, *per se*, more broadly or exactly as extensively as it is defined in Claim 1, may have many reasons. Some of the variants might well be already known, and the applicant could have also decided to exercise a voluntary restraint in claiming a monopoly for some commercial or legal reasons.

10. There is sufficient technical information to justify a *prima facie* finding of unity of invention between a claim to a mixture, i.e. composition, and a claim to one essential component, i.e. element, of that mixture or a narrowly defined version thereof. Thus, both inventions could be considered to fall within the same general inventive concept. In such cases the requirement that the means for preparing the end product should be "specially designed for carrying out the process" appears to be fulfilled since none of the means leads or is related to an end product outside the scope of the definition thereof. In view of this the character of the invention in the component is, *prima facie*, also dependent on the

existence of an invention in the end product and it would, in this situation, be improper to doubt unity until examination of the corresponding inventive steps results in an, a posteriori, loss of unity later on. Since no other kind of component, e.g. the type (b), is also claimed in the application, the question of the relationship of the components to each other does not arise in connection with unity. For these reasons, the subject-matters of all claims possess unity in the present case. The additional search fee cannot, therefore, be retained in any case.

Order

For these reasons, it is decided that:

Refund of the additional search fee is ordered.

The Registrar:

The Chairman:

F.Klein

P.Lançon