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Datasheet for the decision of 26 November 2024

Case Number: T 1472/23 - 3.3.05

Application Number: 15905988.0

Publication Number: 3363532

IPC: B01J13/04, A23P10/30

Language of the proceedings: EN

Title of invention:
METHOD FOR GRANULATING, FORMING, AND DRYING FAT SOLUBLE NUTRIENT MICROCAPSULE PARTICLES

Patent Proprietor:
Zhejiang Medicine Co., Ltd. Xinchang Pharmaceutical Factory

Opponent:
DSM Nutritional Products AG

Headword:
Microcapsule drying method/Zhejiang Medicine

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
Amendments - added subject-matter (yes)

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It can be changed at any time and without notice

Decisions cited:

Catchword:

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Case Number: T 1472/23 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 26 November 2024

Appellant: (Opponent)	DSM Nutritional Products AG Wurmisweg 576 4303 Kaiseraugst (CH)
Representative:	Kraus & Lederer PartGmbB Thomas-Wimmer-Ring 15 80539 München (DE)
Respondent: (Patent Proprietor)	Zhejiang Medicine Co., Ltd. Xinchang Pharmaceutical Factory No.59 Huancheng Donglu Xinchang County Zhejiang 312500 (CN)
Representative:	Cattaneo, Elisabetta Notarbartolo & Gervasi S.p.A. Viale Achille Papa, 30 20149 Milano (IT)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 20 June 2023 concerning maintenance of the European Patent No. 3363532 in amended form.**

Composition of the Board:

Chair	E. Bendl
Members:	S. Besselmann
	S. Fernández de Córdoba

Summary of Facts and Submissions

I. The appeal in this case is against the opposition division's interlocutory decision that European patent EP 3 363 532 B1 in amended form on the basis of the main request met the requirements of the EPC.

II. The patent in suit relates to a method for granulating, forming, and drying fat-soluble nutrient microcapsule particles.

III. Claim 1 of the main request reads as follows:

"*A method for drying microcapsule particles containing multiple double bonds fat soluble nutrients, comprising the following steps:*

a) preparing a microcapsule emulsion containing multiple double bonds fat soluble nutrients, performing spray granulation on the microcapsule emulsion in a spray system, and meanwhile blasting air into the spray system, the blasted air wrapping adsorption materials, and the microcapsule emulsion being immediately solidified and sized after coming into contact with the air; wherein in step a), the temperature of blasting air into the spray system is 10-90°C ;

b) performing fluidized drying of the solidified and sized microcapsule emulsion of the step a) into a multi-stage fluidized bed system; wherein in step b), a number of the stages of the multi-stage fluidized bed system is 2-4 level, the differential pressure between two adjacent stages of the multi-stage fluidized bed system is 0,14 MPa (20psi); an inlet air temperature of the multi-stage fluidized bed system is in a range of

20-120°C; an inlet air temperature of a lower fluidized bed is higher than that of an upper fluidized bed, and an inlet air temperature difference is 20-40°C;

c) collecting non-adsorbed adsorption materials by means of an adsorption material dust removal, recovery and circulation system; and

d) collecting microcapsule particle products."

IV. With their grounds of appeal, the opponent (appellant) renewed their objections that, *inter alia*, the requirements of Article 123(2) EPC were not met.

V. The patent proprietor (respondent) did not reply to the appeal and did not make any submissions during the appeal proceedings.

VI. The board informed the parties that the initially scheduled oral proceedings would be cancelled and the proceedings continued in writing (notification dated 2 September 2024).

VII. The appellant requested that the decision under appeal be set aside and the patent revoked.

Reasons for the Decision

1. Need for oral proceedings

1.1 The appellant requested oral proceedings only conditionally. Since the appellant's substantive request can be allowed - as will be shown - and the respondent did not make any submission or request

during the appeal proceedings, there was no need to hold oral proceedings.

2. Article 123(2) EPC

2.1 Compared with claim 1 as originally filed, the following amendments, *inter alia*, have been made in claim 1 at issue.

Claim 1 no longer contains the feature "*so as to obtain liquid droplets having surfaces to which adsorption materials are adsorbed*", which was the last part of step a) of claim 1 as originally filed. In step b), the expression "*b) performing fluidized drying on the liquid droplets having surfaces to which the adsorption material is adsorbed in the step a)*" has been replaced by "*b) performing fluidized drying of the solidified and sized microcapsule emulsion of the step a)*" (see point 11.1 of the impugned decision).

Furthermore, the number of stages of the multi-stage fluidised bed has been changed from "1-4" to "2-4" (ibid.).

2.2 According to the appellant, the indicated amendments infringed the requirements of Article 123(2) EPC.

2.3 According to the impugned decision (point 11.3), it was unclear from the application as filed how the terms "liquid droplets", "emulsion" and "solidified" could be reconciled. The opposition division regarded it as an aspect of "solidification" that the droplets were prevented from "re-coalescence" or "re-agglomeration" (ibid.). It concluded that the deletions of the expression "*liquid droplets having surfaces to which*

adsorption materials are adsorbed" did not infringe the requirements of Article 123(2) EPC, because the deleted features, as far as they could be understood, were still implicitly present in the claim.

2.4 However, while the definition of step a) in claim 1 as originally filed is unclear in that a solidified emulsion would not normally be regarded as being in the form of liquid droplets, this inconsistency does not provide a basis for deleting the reference to "*liquid droplets having surfaces to which adsorption materials are adsorbed*". Step a) of claim 1 as originally filed clearly results in "*liquid droplets having surfaces to which adsorption materials are adsorbed",* and it is these "*liquid droplets having surfaces to which adsorption materials are adsorbed"* that are subjected to fluidised drying step b). This is confirmed by the corresponding description in the application as originally filed, according to which a small amount of adsorption materials is adsorbed on the surface of the droplet after spraying in order to prevent re-agglomeration of the droplets (page 11, lines 1-2; corresponding to paragraph [0035], lines 37-38, of the A1 publication).

2.5 In contrast, claim 1 at issue no longer contains these features. It specifies, instead, that the "*solidified and sized microcapsule emulsion of the step a)"* is subjected to fluidised drying. However, there is no basis on which it could be concluded that a "*solidified and sized microcapsule emulsion"* is necessarily identical to "*liquid droplets having surfaces to which adsorption materials are adsorbed".* Nor is there any basis for concluding that the claimed step of *"performing spray granulation on the microcapsule emulsion in a spray system, and meanwhile blasting air*

into the spray system, the blasted air wrapping adsorption materials, and the microcapsule emulsion being immediately solidified and sized after coming into contact with the air, wherein the temperature of blasting air into the spray system is 10-90°C" inevitably results in liquid droplets having surfaces to which adsorption materials are adsorbed. For the same reasons, it cannot be regarded as implicit in claim 1 at issue that step a) results in "*liquid droplets having surfaces to which adsorption materials are adsorbed*" and that fluidised drying is performed on "*liquid droplets having surfaces to which adsorption materials are adsorbed*".

2.6 As regards the other objected-to feature (*a number of the stages of the multi-stage fluidized bed system is 2-4 level*), the lower limit of "2" was not explicitly mentioned in the application as originally filed.

According to the impugned decision, the original expression "a number of stages of the multi-stage fluidized bed system is 1~4 level" (claim 7 as originally filed) was contradictory in the case of only one stage. The skilled person would consequently interpret it as referring to "a multi-stage fluidized bed with a number of stages of the multi-stage fluidized bed system of up to 4". The opposition division concluded that the lower limit of the (discrete) number of multiple stages was thus implicitly disclosed, as it could only be 2.

2.7 However, while it is immediately apparent that the reference to 1-4 stages [emphasis added] in claim 7 of the application as originally filed is erroneous, because a multi-stage fluidised bed cannot have only one stage, this does not amount to an implicit

disclosure of the specific number "2". The number of stages has not been specified as "2" anywhere in the application as originally filed. Even if interpreting the original disclosure as relating to "up to 4 stages", the number "2" is only generically encompassed, as is the number "3". Expressly indicating the specific number "2" as the lower end value thus introduces subject-matter which extends beyond the disclosure of the application as originally filed.

2.8 For these reasons, the requirements of Article 123(2) EPC are not met.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar: The Chair:

A. Wille E. Bendl

Decision electronically authenticated