

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2020/051911

International filing date (day/month/year)
05.03.2020

Priority date (day/month/year)
07.03.2019

International Patent Classification (IPC) or both national classification and IPC
INV. A22C13/00

Applicant
VISCOFAN, S.A.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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this opinion

see form
PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>10</u>
	No: Claims	<u>1-9, 11-14</u>
Inventive step (IS)	Yes: Claims	<u>10</u>
	No: Claims	<u>1-9, 11-14</u>
Industrial applicability (IA)	Yes: Claims	<u>1-14</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Reference is made to the following documents; the numbering will be adhered to in the rest of the procedure.
 - D1 US 4 851 394 A (KUBODERA MASAO [JP]) 25 July 1989 (1989-07-25)
 - D2 CA 2 372 642 A1 (TAYLOR PETER [CA]; MACQUARRIE REG [CA]; SCHUPP KURT [CA]) 16 November 2000 (2000-11-16)
 - D3 US 6 730 340 B1 (MACQUARRIE REG [CA] ET AL) 4 May 2004 (2004-05-04)
 - D4 GB 2 048 642 A (MARS LTD) 17 December 1980 (1980-12-17)
 - D5 EP 0 795 270 A1 (VISKASE CORP [US]) 17 September 1997 (1997-09-17)
- 2 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claims 1 to 7, 9, and 11 to 14 is not new.
- 2.1 Document D1 discloses an edible seamless tubular food casing (col. 6, l. 12-26) comprising at least one hydrocolloid which can be chemically coagulated selected from the group consisting of an alginate salt, carrageen and pectin (col. 3, l. 59-66), and at least one water-soluble hydrocolloidal vegetable gum which forms a thermo-irreversible water-insoluble gel (it is known; cf. D4, p. 1, l. 82-87; that glucomannans can be caused to form thermoirreversible gels at a pH not higher than 8 if they are heated together with a carrageenan at a temperature above 100°C for a sufficient period; cf. D1, col. 4, l. 65-67; examples 3 to 6) selected from the group consisting of a gellan gum and a glucomannan (col. 1, l. 7-13; col. 4, l. 1-6), wherein said at least one water-soluble hydrocolloidal vegetable gum is present in an amount of from 24 to 80 weight% based on the dry solids weight of the edible tubular food casing (col. 4, l. 25-28) and the

weight ratio of said at least one hydrocolloid to said at least one hydrocolloidal vegetable gum is in a range of from 0.2 to 1.45:1.0 to 3.0 based on the dry solids weight of the edible tubular food casing (col. 4, l. 50-64).

The above mentioned features are also known from documents D2 (p. 3, l. 7-20; p. 4, l. 6-24; p. 7, l. 10-26) and D3 (col. 2, l. 11-30; col. 4, l. 15-28; claim 8)

The subject-matter of claim 1 is therefore not new (Article 33(2) PCT).

- 2.2 Documents D1, D2 and D3 also disclose a composition with the technical features of independent claim 7.

The subject-matter of claim 7 is therefore not new (Article 33(2) PCT).

- 2.3 Document D1 also discloses a method for producing an edible seamless tubular food casing comprising the following steps:

- preparing the composition and mixing it with water (claim 23);
- extruding the composition through an extrusion device and coagulating the extruded material so as to form a tubular structure (col. 5, 16-25; col. 6, l. 1-11);
- subjecting the tubular structure to a deacetylation step so as to form a tubular casing (being known that contacting the liquid film of a glucomannan solution with a bath comprising a saturated salt solution having a pH other than neutral leads to it deacetylation; cf. D5, claim 1, step d; this step is implicit in the extrusion and subsequent coagulation of the casing); and
- drying the tubular casing (col. 5, 16-25; also common general knowledge for the person skilled in the art of casing extrusion).

The subject-matter of claim 9 is therefore not new (Article 33(2) PCT).

- 2.4 The use of such a composition for producing edible seamless tubular food casings is also known from the disclosure of documents D1, D2 and D3.

The subject-matter of claim 14 is therefore not new (Article 33(2) PCT).

- 2.5 The following features are also known from the disclosure of documents D1, D2 and D3:

- an additional component consisting of xanthan gum and a galactomannan (D1, table 1);

- the hydrocolloidal vegetable gum being present in an amount of from 30 to 50 weight% based on the dry solids weight of the edible tubular food casing and the weight ratio the hydrocolloid to the hydrocolloidal vegetable gum is in a range of from 0.5 to 1.0:1.1 to 2.0 based on the dry solids weight of the edible tubular food casing (D1; col. 4, l. 25-28 and 50-64; table 1).

- 2.6 Coagulating a composition on the extrusion apparatus by adding a coagulating solution to obtain a coagulated edible tubular food casing; subjecting the casing which is still in a gel status, to a monoaxial or biaxial stretching step so as to improve the mechanical strength of the casing in the longitudinal and/or transverse direction; and applying heat to the casing in order to dry and strengthen the casing are well known operations in the field of casing extrusion for the person skilled in the art.

The subject-matter of claims 11, 12 and 13 is therefore not new (Article 33(2) PCT).

- 3 Claim 8 appears to contain features which do not contribute to the technical character of the claimed invention and cannot, therefore, support the presence of an inventive step. Should the applicant rely on this feature when providing arguments for the presence of an inventive step, it will be necessary to substantiate why said feature is considered by the applicant to make a technical contribution over D1, i.e. to contribute to a technical effect for solving a technical problem.
- 4 The combination of the features of dependent claim 10 is neither known from, nor rendered obvious by, the available prior art.

Re Item VII

Certain defects in the international application

- 1 Independent claims 1, 7, 9 and 14 are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art [insert document(s)] being placed in the preamble (Rule 6.3(b)(i) PCT) and the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 and D2 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII

Certain observations on the international application

- 1 The application does not meet the requirements of Article 6 PCT, because claims 5, 6 and 8 are not clear.
 - 1.1 Claim 5 is drafted as being dependent on any of the preceding claims. However, this claim contains all the technical features of claim 4. Claim 5 should therefore be drafted as being dependent exclusively on claim 4.

The same applies for claim 6, which should be drafted as exclusively dependent on claim 5.
 - 1.2 Claim 8 does not meet the requirements of Article 6 PCT because the matter for which protection is sought is not clearly defined. The claim attempts to define the subject-matter in terms of the result to be achieved, i.e. a particular viscosity range, which merely amounts to a statement of the desired characteristics of the final product, without providing the technical features necessary for

achieving this result. In this instance, such a formulation is not allowable because it appears possible to define the subject-matter in more concrete terms, viz. in terms of how this viscosity is to be achieved.

Moreover, the description does not disclose a technical teaching allowing the skilled person to manufacture the composition complying with the parametric definition of claim 8. This claim is therefore both technically not supported and not sufficiently disclosed.