

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

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/EP2020/060076

International filing date (day/month/year)
08.04.2020

Priority date (day/month/year)
10.04.2019

International Patent Classification (IPC) or both national classification and IPC
INV. A01N25/10 A01N25/30 A01N47/06 A01P7/00

Applicant
SYNGENTA CROP PROTECTION AG

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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Date of completion of
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>1-15</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-15</u>
Industrial applicability (IA)	Yes: Claims	<u>1-15</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

Reference is made to the following documents; the numbering will be adhered to in the rest of the procedure.

- D1 US 2010/056598 A1 (HIMMLER THOMAS [DE] ET AL) 4 March 2010 (2010-03-04)
- D2 US 2015/259345 A1 (MUEHLEBACH MICHEL [CH] ET AL) 17 September 2015 (2015-09-17)
- D3 US 2012/156262 A1 (GUTSCHE OIVER WALTER [US] ET AL) 21 June 2012 (2012-06-21)
- D4 CN 103 478 151 A (JIANGSU LVDUN PLANT PROT AGROCHEMICAL EX CO LTD) 1 January 2014 (2014-01-01)
- D5 CN 103 828 832 B (SHAANXI ANDREAP AGROCHEMICAL CO LTD) 8 July 2015 (2015-07-08)
- D6 CN 108 184 860 A (SINON CHEMICAL CHINA CO LTD) 22 June 2018 (2018-06-22)
- D7 WO 2019/033918 A1 (JIANGSU ROTAM CHEMISTRY CO LTD [CN]) 21 February 2019 (2019-02-21)

1. The present application relates to 1) a pesticidal composition comprising:(i) a compound of Formula (I) as active ingredient and (ii) an adjuvant combination comprising components:(a) an oxirane/methyl oxirane block co-polymer (polyoxyethylene/polyoxypropylene block copolymer); and (b) an alcohol alkoxylate; wherein the weight ratio of component (a) to component (b) is 1:3 to 3:1; and the weight ratio of component (i) to (ii) is 1:1 to 1:4; 2) an aqueous diluted composition comprising the pesticidal composition; 3) a method of combating and controlling pests applying to a pest, to a locus of a pest, or to a crop the mentioned composition, and 4) a method of controlling pests which comprises applying to the soil of a crop the mentioned composition by drip, drenching or injection to the soil.

Prior art

2. D1 discloses compounds of formula (I-c), which comprise the compounds of formula one of the present application and its use as pesticides to fight the same type of pests as in the present application (see the passages mentioned in the search report).
3. D2 discloses compounds of formula (I), which comprise the compounds of formula one such as spirotetramat of the present application and its use as pesticides to fight the same type of pests as in the present application; compositions comprising these compounds and adjuvants are also disclosed (see the passages mentioned in the search report).
4. D3 discloses compositions which comprise the compounds of formula one of the present application such as spirotetramat and adjuvants such as PLURONIC poloxamers and their use as pesticides to fight the same type of pests as in the present application (see the passages mentioned in the search report).
5. D4 discloses compositions which comprise a compound of formula one of the present application such as spirotetramat and adjuvants such as polyoxyethylene polyoxypropylene base ether block copolymers and their use as pesticides to fight pests (see the passages mentioned in the search report).
6. D5 discloses compositions which comprise a compound of formula one of the present application such as spirotetramat and adjuvants such as polyoxyethylene polyoxypropylene base ether block copolymers and their use as pesticides to fight pests (see the passages mentioned in the search report).
7. D6 discloses compositions which comprise a compound of formula one of the present application such as spirotetramat and adjuvants such as polyoxyethylene polyoxypropylene base ether block copolymers and their use as pesticides to fight pests (see the passages mentioned in the search report).
8. D7 discloses compositions which comprise a compound of formula one of the present application such as spirotetramat and adjuvants such as polyoxyethylene polyoxypropylene base ether block copolymers and an alcohol alkoxylate inter alia and their use as pesticides to fight pests (see the passages mentioned in the search report).

Novelty

9. The subject-matter of claims 1-15 is novel within the meaning of Article 33(2) PCT.

None of the available documents of the prior art discloses 1) a pesticidal composition comprising: (i) a compound of Formula (I) as active ingredient and (ii) an adjuvant combination comprising components: (a) an oxirane/methyl oxirane block co-polymer (polyoxyethylene/polyoxypropylene block copolymer); and (b) an alcohol alkoxylate; wherein the weight ratio of component (a) to component (b) is 1:3 to 3:1; and the weight ratio of component (i) to (ii) is 1:1 to 1:4; 2) an aqueous diluted composition comprising

the pesticidal composition; 3) a method of combating and controlling pests applying to a pest, to a locus of a pest, or to a crop the mentioned composition, or 4) a method of controlling pests which comprises applying to the soil of a crop the mentioned composition by drip, drenching or injection to the soil (see paragraphs 2-8).

Inventive step

10. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-15 does not involve an inventive step in the sense of Article 33(3) PCT.

D7 discloses compositions which comprise a compound of formula one of the present application such as spirotetramat and adjuvants such as polyoxyethylene polyoxypropylene base ether block copolymers and an alcohol alkoxylate inter alia and their use as pesticides to fight pests (see the passages mentioned in the search report).

D5 and D6 disclose compositions which comprise a compound of formula one of the present application such as spirotetramat and adjuvants such as polyoxyethylene polyoxypropylene base ether block copolymers and their use as pesticides to fight pests (see the passages mentioned in the search report).

D3 discloses compositions which comprise the compounds of formula one of the present application such as spirotetramat and adjuvants such as PLURONIC poloxamers and their use as pesticides to fight the same type of pests as in the present application (see the passages mentioned in the search report).

The problem to be solved in the application can be seen in the provision of an alternative composition for controlling pests and an alternative method for controlling pests, taking into account that there is no example in the application showing that the use of ii) an adjuvant combination comprising components:(a) an oxirane/methyl oxirane block co-polymer (polyoxyethylene/polyoxypropylene block copolymer); and (b) an alcohol alkoxylate provides better results than compositions comprising only one of the components of the adjuvant, namely (a) an oxirane/methyl oxirane block co-polymer (polyoxyethylene/polyoxypropylene block copolymer) as in D3, D5-D7 or (b) an alcohol alkoxylate as in D7. Moreover, the use of several of the common adjuvants of the prior art in a pesticidal composition is seen as a obvious measure for the person skilled in the art and in case one adjuvant is not enough, using more than one is an obvious measure. Additionally, the scope of protection is too broad in view of the experiments in the application. Hence, an inventive step cannot be acknowledged.

Re Item VII

Re Item VIII

Certain defects in and observations on the international application

1. The subject matter of claim 10 encompasses a method of treatment of the human or animal body by therapy. This subject-matter is considered by this Authority to be covered by the provisions of Rule 39.1(iv) / 67.1(iv) PCT.

The patentability can be dependent upon the formulation of the claims. The EPO, for example, does not recognise as patentable claims to the use of a compound in medical treatment, but may allow claims to a product, in particular substances or compositions for use in a first or further medical treatment.

2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1-D7 is not mentioned in the description, nor are these documents identified therein.