

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/EP2024/079158

International filing date (day/month/year)
16.10.2024

Priority date (day/month/year)
27.10.2023

International Patent Classification (IPC) or both national classification and IPC
INV. C07D401/06 A01N43/60

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:



European Patent Office
D-80298 Munich
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Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Kleidermigg, Oliver

Telephone No. -0



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 43*bis*.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.
 - b. ☐ furnished subsequent to the international filing date for the purposes of international search (Rule 13*ter*.1(a)),
 - ☐ accompanied by a statement to the effect that the sequence listing does not go beyond the disclosure in the international application as filed.
4. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established to the extent that a meaningful opinion could be formed without a WIPO Standard ST.26 compliant sequence listing.
5. Additional comments:

Box No. V Reasoned statement under Rule 43*bis*.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>1-13</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-13</u>
Industrial applicability (IA)	Yes: Claims	<u>1-13</u>
	No: Claims	

2. Citations and explanations

see separate sheet

ad Item V

Reference is made to the following documents:

- D1 WO 2021/053161 A1 (SYNGENTA CROP PROTECTION AG [CH]) 25
March 2021 (2021-03-25)cited in the application
- D2 WO 2022/207462 A1 (SYNGENTA CROP PROTECTION AG [CH]) 6
October 2022 (2022-10-06)cited in the application

Novelty

D1 (cf. passages indicated in the SR) differs from the subject matter of claim 1 only insofar that R1 is not defined to be ethyl, but methyl.

D2 (cf. passages indicated in the SR) differs from the subject matter of claim 1 only in R3. D2 discloses an alkoxy substituent whereas presently claimed is C₁-C₃-alkyl, C₁-C₃-haloalkyl, C₃-C₄-cycloalkyl, or C₃-C₄-halocycloalkyl.

Consequently, the subject matter of claim 1 is novel. Claims 2-11 directly or indirectly refer to claim 1 and are therefore considered to be novel by analogy. Concerning claims 12 and 13 which appear to be intermediates of the products of claim 1, those are also novel for the same reasons given above.

Inventive step

D1 is considered to represent the closest prior art.

In view of the distinguishing features with respect to the closest prior art, the objective technical problem may be considered as the provision of alternative pesticides.

The solution is given in claim 1 and concerns the distinguishing features.

1)

This Authority notes that, when the technical problem is simply that of providing a further composition of matter or a further method, i.e. simply that of providing an alternative to the prior art, any feature or combination of features already conventional for that sort of composition of matter or method represents an equally suggested or obvious solution to the posed problem. Thus, this Authority considers that the simple act of arbitrarily selecting one among equally obvious alternative variations is deprived of any inventive character.

2)

In addition and on the basis of the very limited biological results and the extremely minor variations in the structure of the tested examples, compared to all possible variations claimed, the applicant did not unambiguously show that all claimed compounds have the same effect (Article 33(3) PCT) and that the objective technical problem has been indeed solved over the entire scope of claim 1.

3)

The combination of D1 with D2 leads the skilled person in the art directly to the present solution of the objective technical problem. From D2 it may be seen that the R1 may be varied without losing the pesticidal activity. Thus, it is an obvious measure for the skilled person the exchange methyl by ethyl. This structural modification is carried out without exercising inventive activity as such.

4)

In view of the above, the subject matter of claim 1 is not considered to be inventive.

Claims 2-13 are presently not considered to add any features which may establish inventive activity.

Medical use

Claim 8 relate to subject-matter 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.

Patentability, in particular novelty and inventive step, of claim 8 has been assessed on the basis of a purpose-limited product claim taking into account the alleged effects of the compound/composition.