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- (74) Agents: **DE GREGORI, Antonella** et al.; Ing. Barzano & Zanardo, Milano S.p.A., Via Borgonuovo, 10, I-20121 Milan (IT).
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27 November 2002 (27.11.2002) IT
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(54) Title: FUNGICIDAL COMPOSITIONS CONTAINING AT LEAST ONE SALT OF PHOSPHOROUS ACID AND AT LEAST A SECOND FUNGICIDAL COMPONENT

(57) Abstract: Fungicidal compositions are described, consisting of mix tures comprising salts of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and at least a second component selected from compounds having an antifungal activity. The component having an antifungal activity can be selected, for example, from IR5885, IR6141, copper (I) or copper (II) salts (such as copper oxychloride, copper hydroxide, tribasic copper sulfate), dithiocarbamates (such as mancozeb, zineb, propineb), folpet.



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**INTERNATIONAL SEARCH REPORT**

International Application No

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 A01N59/26

//(A01N59/26,59:20,51:00,47:28,47:26,47:24,47:14,47:10,43:836,43:18  
37:30,37:22,37:10,33:06)

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category <sup>o</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 131 296 A (RHONE POULENC AGROCHIMIE) 20 June 1984 (1984-06-20) page 1, line 19 - line 44 page 2, line 15 - line 31; example 3	1-5,9-17
X	DE 40 39 875 A (RHONE POULENC AGROCHIMIE) 20 June 1991 (1991-06-20) page 2, line 1 - line 12; claims 1,7; examples 3,6 page 3, line 60 - line 70	1-5,9-17
A	FR 2 252 056 A (PEPRO) 20 June 1975 (1975-06-20) page 1, line 30 - page 4, line 3 page 6, line 22 - line 30	1-5,9-17
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

<sup>o</sup> Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

25 March 2004

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05. 07. 2004

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 771 900 A (ISHIHARA SANGYO KAISHA) 11 June 1999 (1999-06-11) page 2, line 6 - line 12 page 2, line 30 - line 35 page 3, line 13 - page 4, line 14; examples 4-7	1-5,9-17
A	----- EP 0 230 209 A (CIBA GEIGY AG) 29 July 1987 (1987-07-29) page 5 - page 6 page 14 - page 15	1-5,9-17
A	----- GB 2 095 114 A (RHONE POULENC AGROCHIMIE) 29 September 1982 (1982-09-29) page 1, line 34 - line 45	1-5,9-17
A	----- EP 0 223 719 A (RHONE POULENC AGROCHIMIE) 27 May 1987 (1987-05-27) page 2, line 6 - line 30; claim 1; examples 1-3	1-5,9-17
A	----- WO 02/060259 A (SOYEZ JEAN-LOUIS) 8 August 2002 (2002-08-08) page 6, line 20 - page 7, line 4 -----	1-5,9-17

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/12943

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5, 9-17 (all in part)

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 9-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Cymoxanil and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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2. claims: 1-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) IR5885 and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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3. claims: 1-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a phenylamide-type fungicide selected from IR6141, Benalaxyl, Metalaxyl, Mefenoxam, Oxadixyl, Ofurace and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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4. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Iprovalicarb or Bentiavalicarb-isopropyland, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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5. claims: 1-5, 10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a strobilurin-type fungicide selected from Azoxystrobin, Kresoxym-methyl, Tryfloxystrobin, Pyraclostrobin, Picoxystrobin, Metominofen, Famoxadone and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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6. claims: 1-5,10-17 (all in part)

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Acibenzolar and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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## 7. claims: 1-5, 10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a phtalimide fungicide selected from Captano and Folpet and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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## 8. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Fenamidone and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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## 9. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Cyazofamide and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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## 10. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Fluazinam and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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## 11. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Dimetomorph or Flumorph and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## 12. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Flumetover and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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## 13. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Chlorothalonil and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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## 14. claims: 1-6,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a dithiocarbamate-type fungicide selected from Thiram, Propineb, Mancozeb, Maneb, Zineb and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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## 15. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a sulfamide-type fungicide selected from Dichlofluanide and Tolyfluanide and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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## 16. claims: 1-5, 10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Dithianon and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

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## 17. claims: 1-5, 10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Etridiazole and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

18. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Hymexanol and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

19. claims: 1-5,10-17(all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a (thio)carbamate fungicide selected from Protiocarb and Propamocarb and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

20. claims: 1-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) a copper ((I) or(II)) salt and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

21. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) an aniline-type fungicide selected from Mepanipyrim, Pyrimethanil and Cyprodinil and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

22. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) (R)- or (RS)-3-amino-butanoic acid and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them

23. claims: 1-5,10-17 (all in part)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Zoxamide and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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24. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Salicylic acid or its derivatives and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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25. claims: 1-5,10-17 (all in part)

Fungicidal compositions comprising (A) at least one salt of an alkaline or alkaline-earth metal, Mn or Zn of phosphorous acid and (B) Ethaboxam and, optionally, additional fungicides; their use for the control of phytopathogens and a method for the control of phytopathogens using them  
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Information on patent family members

International Application No

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