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BONORA, Michela [IT/IT]; Via Volontari Della Libertà,
9, I-40135 Bologna (IT).

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(74) Common Representative: **CIBA SPECIALTY CHEMICALS HOLDING INC.**; Patent Department, Klybeckstrasse 141, CH-4057 Basel (CH).

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(71) Applicant (for AE, AG, AL, AM, AT, AU, AZ, BA, BB, BE, BF, BG, BJ, BR, BW, BY, BZ, CA, CF, CG, CH, CI, CM, CN, CO, CR, CU, CY, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, FR, GA, GB, GD, GE, GH, GM, GN, GQ, GR, GW, HR, HU, ID, IE, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MC, MD, MG, MK, ML, MN, MR, MW, MX, MZ, NA, NE, NG, NI, NL, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE only): **CIBA SPECIALTY CHEMICALS HOLDING INC.** [CH/CH]; Klybeckstrasse 141, CH-4057 Basel (CH).

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(71) Applicant (for IT only): **CIBA SPECIALTY CHEMICALS S.P.A.** [IT/IT]; Via Pila, 6/3, Fraz. Pontecchio Marconi, I-40037 Sasso Marconi (BO) (IT).

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(72) Inventors; and

(75) Inventors/Applicants (for US only): **GARDI, Stefano** [IT/IT]; Via Majani Augusto, 2, I-40122 Bologna (IT). **PICCINELLI, Piero** [IT/IT]; Via Porrettana, 212, I-40037 Sasso Marconi (BO) (IT). **SALA, Massimiliano** [IT/IT]; Via Della Repubblica, 20, I-41051 Castelnuovo Rangone (MO) (IT). **WUNDERLICH-WIPPERT, Wiebke** [DE/DE]; Bergstrasse 45, 79539 Lörrach (DE).

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(54) Title: ADDITIVE MIXTURES FOR AGRICULTURAL ARTICLES

(57) Abstract: An agricultural article made of a composition containing (a) an organic polymer, and (b) an additive mixture comprising the components (b-0) a photosensitizer, (b-I) an organic salt of a transition metal, and optionally (b-II) an inorganic peroxide or inorganic superoxide.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2006/061048

A. CLASSIFICATION OF SUBJECT MATTER INV. C08K5/098 C08K3/22 C08K5/08 C08L23/02				
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) C08K C08L				
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, COMPENDEX				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 4 038 227 A (SWANHOLM ET AL) 26 July 1977 (1977-07-26) column 1, lines 13-24 column 3, lines 1-68 example 19	1-3,7, 10,11, 13-15, 22-25, 27,28,35		
Y	claims 1,2	4-6,29		
X	US 5 776 361 A (KATSUMOTO ET AL) 7 July 1998 (1998-07-07) column 2, lines 7-14 column 2, lines 36-41 column 3, lines 43-52 column 4, lines 13-55 claim 32	1,2,7-9, 27,28		
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.				
<input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents :				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "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 </td> <td style="width: 50%; border: none; vertical-align: top;"> "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 </td> </tr> </table>			"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
"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 <p style="text-align: center;">23 June 2006</p>	Date of mailing of the international search report <p style="text-align: center;">16 OCT 2006</p>			
Name and mailing address of the ISA/ European Patent Office, P.B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center;">Jansen, Reinier</p>			

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2006/061048

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 258 422 A (CHANG ET AL) 2 November 1993 (1993-11-02) column 4, lines 56-68 column 10, lines 3-66 column 12, lines 1-27 -----	4-6,29
P,A	US 6 899 963 B1 (ZHENG SHIYING ET AL) 31 May 2005 (2005-05-31) example 1 -----	33,34
A	US 5 250 385 A (KONDO ET AL) 5 October 1993 (1993-10-05) column 4, line 21 - column 6, line 8 -----	34,35

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2006/061048

Box II Observations where certain claims were found unsearchable (Continuation of item 2 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 III Observations where unity of invention is lacking (Continuation of item 3 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 - 11, 14, 15, 22 - 25, 27 - 29, 35, part of 13

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: 1-11,14,15,22-25,27-29,35, part of 13

An agricultural article according to claim 1, in which component (b-II) is present; the additive mixture of claim 29; the article according to claim 13 in which (b-0) is present and is a 2-substituted anthraquinone (H on R1-5,7 and 8 is normally named 2-substituted); the article of claim 24 in which the polymer is a polyethylene or -propylene homo- or copolymer .

2. claims: 12, part of 13,18

The article of claim 18 in which b-0 is a 1,2-bis[2-ethyl-hexyloxy]anthraquinone.

3. claim: part of 13

The article of claim 13 in which b-0 is a 1-monosubstituted anthraquinone (A).

4. claim: part of 13

The article of claim 13 in which b-0 is a 2,6-disubstituted anthraquinone (A).

5. claim: part of 13

The article of claim 13 in which b-0 is a 1,5-disubstituted anthraquinone (A).

6. claim: 16

The article of claim 16 in which b-0 is another anthraquinone (B-1) according to claim 16.

7. claim: 17

The article of claim 17 in which b-0 is a another anthraquinone (B) according to claim 17.

8. claims: 19, part of 18

An additive mixture comprising a polyterpene as component (b-0) and a carboxylate transition metal salt as component (b-1)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

9. claims: 20,21,30

The additive mixture of claim 30, comprising the additive (b-V)

10. claims: 23, part of 22

The article of claim 23 in which the polymer comprises a polyolefin modified with starch

11. claims: 23, part of 22

The article of claim 23 in which the polymer comprises a starch based composite.

12. claim: 26

The article of claim 26, a mulch film

13. claim: 31

The additive mixture of claim 31, comprising a carbon black (b-IV)

14. claim: 32

The additive mixture of claim 32, comprising (b-I) and anthraquinone as (b-0).

15. claims: part of 33,34

2,6-bis[octadecyloxy]anthraquinone

16. claims: part of 33,34

1-(4,6-bis[dibutylamino]-[1,3,5]-triazin-2-ylamino)-anthraquinone

17. claims: part of 33,34

2-(4,6-bis[dibutylamino]-[1,3,5]-triazin-2-ylamino)-anthraquinone

18. claims: part of 33,34

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

2,6-bis[4,6-bis[dibutylamino]-[1,3,5]-triazin-2-yloxy]-anthraquinone

19. claims: part of 33,34

2-(2-ethyl-hexyloxy)-1-octadecyloxy-anthraquinone

20. claims: part of 33,34

1,2-bis[octadecyloxy]anthraquinone

21. claims: part of 33,34

1,2-bis[2-ethyl-hexyloxy]anthraquinone

22. claims: part of 33,34

1.22: 1,2-bis[octyloxy]anthraquinone

23. claims: part of 33,34

1,5-bis[2-ethyl-hexyloxy]anthraquinone

24. claims: part of 33,34

9,10-dioxo-9,10-dihydro-anthracene-2-sulfonic acid
 dodecylamide

25. claims: part of 33,34

2,6-bis[stearyloxy]anthraquinone

26. claims: part of 33,34

bis[9,10-dioxo-9,10-dihydro-anthracene-2-sulfonic
 acid]-1',12'-dodecylamide

27. claims: 36-40,43-47

an article according to claim 36 in which component (b-II)
 is present; the article of claim 47 in which a further; the
 article according to claim 18 in which the article an
 agricultural article which is a mulch film.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

28. claims: 40,41

an article of claim 41 for food or beverage.

29. claim: 41

an article of claim 41 for cosmetics.

30. claim: 42

an article of claim 42 which is a medical article.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2006/061048

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
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