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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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Declarations under Rule 4.17:
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
— *of inventorship (Rule 4.17(iv))*

Published:
— *with international search report (Art. 21(3))*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
29 January 2015

WO 2014/191097 A3

(54) Title: MICROBICIDAL COMPOSITION COMPRISING AN ISOTHIAZOLONE AND AN AMINEOXIDE

(57) Abstract: The present invention relates to a microbicidal composition in the form of a concentrate and to the use of the composition for the preservation of technical and domestic products, preferred for the preservation of wet wipes.

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Box No. 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 No. 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 fees, this Authority did not invite payment of additional fees.

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.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2014/001394

A. CLASSIFICATION OF SUBJECT MATTER
INV. A01N33/08 A01N33/14 A01N43/80 C11D3/28 A01P1/00
ADD.

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)
A01N C11D

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 practicable, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data, BEILSTEIN Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 685 827 A1 (ROHM & HAAS [US]) 2 August 2006 (2006-08-02)	1-15
Y	example 13	1-15

X	EP 0 374 702 A2 (KAO CORP [JP]) 27 June 1990 (1990-06-27)	1-15
Y	the whole document; in particular: the abstract; pages 3 and 12 and the claims	3,7-12

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* 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 application or patent 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	Date of mailing of the international search report
28 November 2014	09/12/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Lorenzo Varela, M

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Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	OSTROUMOV ET AL: "Phytotoxicity of a surfactant-containing product towards macrophytes", EKOLOGISCHESKAYA KHIMIYA, ALGA-FUND, RUSSIA, vol. 21, no. 2, 1 January 2012 (2012-01-01), pages 112-116, XP009179913, ISSN: 0869-3498	1-15
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X,P	S. A. OSTROUMOV ET AL: "Phytotoxicity of a surfactant-containing product towards macrophytes", RUSSIAN JOURNAL OF GENERAL CHEMISTRY, vol. 83, no. 13, 1 December 2013 (2013-12-01), pages 2614-2617, XP55135312, ISSN: 1070-3632, DOI: 10.1134/S1070363213130057	1-15
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X	US 6 448 279 B1 (TSENG CHUEN-ING [US] ET AL) 10 September 2002 (2002-09-10) the whole document; in particular: examples 3-6, table 1 and the claims	1-15

X	GB 2 495 109 A (GAMA HEALTHCARE LTD [GB]) 3 April 2013 (2013-04-03)	1-15
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X	ANA RITA TRAVASSOS ET AL: "Non-fragrance allergens in specific cosmetic products", CONTACT DERMATITIS, vol. 65, no. 5, 21 September 2011 (2011-09-21), pages 276-285, XP55137418, ISSN: 0105-1873, DOI: 10.1111/j.1600-0536.2011.01968.x the whole application, in particular example 6 and the claims	1-15

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Y	US 6 855 678 B2 (WHITELEY REGINALD KEITH [AU]) 15 February 2005 (2005-02-15) the abstract and the claims	1-15

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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.
Y	WO 2010/129871 A1 (3M INNOVATIVE PROPERTIES CO [US]; LIU TING [CN]; LIU ZHILAN [CN]; LI Y) 11 November 2010 (2010-11-11) the whole document -----	1-15
Y	WO 2009/101409 A1 (FRASER JAMES [GB]; GOFFINET PIERRE [FR]) 20 August 2009 (2009-08-20) the abstract, pages 1, 4 and 6 and the claims -----	1-15
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Y	"N-methyl-1,2-benzisothiazol-3(2H)-one (MBIT)New Solution for In-can Preservation", SURFACE COATINGS ASSOCIATION AUSTRALIA (SCAA) CONFERENCE,, 24 August 2011 (2011-08-24), pages 1-26, XP007922919, the whole document -----	1-15

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Information on patent family members

International application No
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-15(partially)

   1) Microbicidal composition which comprises: a) as a first component at least 2-methylisothiazolin-3-one (MIT), and b) as a second compound at least one amine oxide having the general formula ONR1 R2 R3, wherein R1, R2 and R3 are independently selected from C1 to C18 straight-chained or branched-chained alkyl and C1 to C4 hydroxyalkyl, [CH2 CH2 O]n H or [CH2 CH2 CH2 O]n H, wherein n is an integer from 1 to 4, characterized in that a ratio of a) to b) is from 1:20 to 10:1; 2) use of the composition for the preservation of technical and domestic products and 3) domestic and technical products comprising the composition are claimed as well.

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2. claims: 1-15(partially)

   1) Microbicidal composition which comprises: a) as a first component at least 1,2-Benzisothiazolin-3-one (BIT), and b) as a second compound at least one amine oxide having the general formula ONR1 R2 R3, wherein R1, R2 and R3 are independently selected from C1 to C18 straight-chained or branched-chained alkyl and C1 to C4 hydroxyalkyl, [CH2 CH2 O]n H or [CH2 CH2 CH2 O]n H, wherein n is an integer from 1 to 4, characterized in that a ratio of a) to b) is from 1:20 to 10:1; 2) use of the composition for the preservation of technical and domestic product and 3) domestic and technical products comprising the composition are claimed as well

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3. claims: 1-15(partially)

   1) Microbicidal composition which comprises: a) as a first component at least N-methyl-1,2 Benzisothiazolin-3-one (Me-BIT), and b) as a second compound at least one amine oxide having the general formula ONR1 R2 R3, wherein R1, R2 and R3 are independently selected from C1 to C18 straight-chained or branched-chained alkyl and C1 to C4 hydroxyalkyl, [CH2 CH2 O]n H or [CH2 CH2 CH2 O]n H, wherein n is an integer from 1 to 4, characterized in that a ratio of a) to b) is from 1:20 to 10:1; 2) use of the composition for the preservation of technical and domestic product and 3) domestic and technical products comprising the composition are claimed as well.