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A01N 31/04 (2006.01) **A61K 8/41** (2006.01)
A01N 31/08 (2006.01) **A61K 8/49** (2006.01)
A01N 35/10 (2006.01) **A61L 2/18** (2006.01)
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(54) Title: ANTIMICROBIAL COMPOSITION

(57) Abstract: The present disclosure relates to the field of antimicrobial compositions. More particularly, it concerns the use of a composition as an antimicrobial agent, the composition comprising ingredients selected from the group consisting of: (i) nona-2,6-dien-1-ol in combination with at least one ingredient selected from the group consisting of 3-neopentylpyridine, 2-methylhexan-3-one oxime, terpineol and 2-isopropyl-5-methylphenol; (ii) gamma-dodecalactone in combination with at least one ingredient selected from the group consisting of 1-Methyl-4-(1-methylethenyl)-cyclohexene, 4-Methoxybenzaldehyde, and 1,3-Benzodioxole-5-carbaldehyde; (iii) (Z)-3,7-Dimethyl-2,6-octadien-1-ol and gamma-dodecalactone; (iv) cis-4(Isopropyl)cyclohexanemethanol and 4-Methoxybenzaldehyde; and (v) 1,3-Benzodioxole-5-carbaldehyde and 4-Methoxybenzaldehyde, wherein the ingredients are present in an amount sufficient to provide an antimicrobial effect. The composition and its use for the preparation of antimicrobially active perfuming compositions and consumer products are also objects of the disclosure.



INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2017/069804

A. CLASSIFICATION OF SUBJECT MATTER					
INV.	A01N31/02	A01N43/08	A01N35/04	A01N27/00	A01N31/04
	A01N31/08	A01N35/10	A01N43/30	A01N43/40	A61K8/31
	A61K8/34	A61K8/35	A61K8/41	A61K8/49	A61L2/18
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 A61K A61L					
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					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category*	Citation of document, with indication, where appropriate, of the relevant passages				Relevant to claim No.
X	US 2014/315772 A1 (CUNNINGHAM PHILIP ANDREW [BE]) 23 October 2014 (2014-10-23) pages 3-4; table 2 paragraphs [0026] - [0051] -----				1-4
X	KR 2003 0068799 A (SEOUL PERFUMERY CO LTD [KR]) 25 August 2003 (2003-08-25) pages 5-6; tables 1-2 ----- -/--				1-4
☒ Further documents are listed in the continuation of Box C. ☒ 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		
22 September 2017			25/04/2018		
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016			Authorized officer Sawicki, Marcin		

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2017/069804

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MALEK BESBES ET AL: "Chemical composition and antimicrobial activity of essential oils from Scabiosa arenaria Forssk: growing wild in Tunisia", CHEMISTRY & BIODIVERSITY, vol. 9, no. 4, 11 April 2012 (2012-04-11), pages 829-839, XP055311952, Switzerland	1-4
A	pages 831-832; table 1 page 835; table 2 page 830, lines 13-15	5
X	----- JOSEPH MATHEW ET AL: "Chemical Composition and Antimicrobial Activity of the Leaf Oil of Amomum cannicarpum (Wight) Bentham ex Baker", THE JOURNAL OF ESSENTIAL OIL RESEARCH : JEOR, vol. 18, no. 1, 1 January 2006 (2006-01-01), pages 35-37, XP055311954, UK ISSN: 1041-2905, DOI: 10.1080/10412905.2006.9699379	1-4
A	page 36; tables I-II	5
X	----- DEEPAK CHANDRA ET AL: "ESSENTIAL OIL COMPOSITION OF ACORUS CALAMUS FROM DISTRICT-PITHORAGARH, UTTARAKHAD, INDIA", WORLD JOURNAL OF PHARMACEUTICAL RESEARCH VOLUME, vol. 4, no. 9, 30 August 2015 (2015-08-30) , pages 1158-1166, XP055311957, page 1174 - page 1175; table 1	1-4
A	----- PIETRO ZITO ET AL: "Essential oils composition of two Sicilian cultivars of Opuntia ficus-indica (L.) Mill. (Cactaceae) fruits (prickly pear)", NATURAL PRODUCT RESEARCH, vol. 27, no. 14, 1 July 2013 (2013-07-01), pages 1305-1314, XP055311960, GB ISSN: 1478-6419, DOI: 10.1080/14786419.2012.734823	1-3,6
A	page 1307; table 1 page 1305, paragraph 1 page 1312, paragraph 4	7
A	----- US 2015/051297 A1 (CORNMELL ROBERT J [GB] ET AL) 19 February 2015 (2015-02-19) claim 2	1-7
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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2017/069804

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2014/350121 A1 (CORNMELL ROBERT J [GB] ET AL) 27 November 2014 (2014-11-27) claim 5	1-7
A	----- US 2004/059005 A1 (WHITE MICHAEL JOHN ROBERT [NL] ET AL) 25 March 2004 (2004-03-25) paragraph [0099]; claim 2; table 1 -----	1-7

INTERNATIONAL SEARCH REPORT

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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.:

4-7(completely); 1-3(partially)

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 4-7(completely); 1-3(partially)

Relates to antimicrobial composition containing:
nona-2,6-dien-1-ol in combination with 3-neopentylpyridine,
2-methylhexan-3-one oxime, terpineol and/or
2-isopropyl-5-methylphenol, in an amount sufficient to
provide an antimicrobial effect against *C. xerosis*, *S.*
aureus and *E. coli* .

2. claims: 10, 11(completely); 1-3, 8, 9(partially)

Relates to antimicrobial composition containing:
gamma-dodecalactone in combination with
1-methyl-4-(1-methylethenyl)-cyclohexene,
(4-methoxybenzaldehyde), and/or
1,3-benzodioxole-5-carbaldehyde; or
(Z)-3,7-dimethyl-2,6-octadien-1-ol, in an amount sufficient
to provide an antimicrobial effect against *C. xerosis*, *S.*
aureus and *E. coli* .

3. claims: 12-15(completely); 1-3, 8, 9(partially)

Relates to antimicrobial composition containing:
4-Methoxybenzaldehyde in combination with
cis-4(Isopropyl)cyclohexanemethanol, or
1,3-Benzodioxole-5-carbaldehyde, (or gamma-dodecalactone) in
an amount sufficient to provide an antimicrobial effect
against *C. xerosis*, *S. aureus* and *E. coli* .

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2017/069804

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014315772 A1	23-10-2014	BR 112015025343 A2 CA 2907487 A1 CN 105120961 A EP 2986346 A1 JP 2016522275 A US 2014315772 A1 US 2016230128 A1 WO 2014172535 A1	18-07-2017 23-10-2014 02-12-2015 24-02-2016 28-07-2016 23-10-2014 11-08-2016 23-10-2014
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