

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 September 2006 (21.09.2006)

PCT

(10) International Publication Number
WO 2006/099232 A3

(51) International Patent Classification:

A61Q 17/00 (2006.01) C11D 1/66 (2006.01)
A61K 8/02 (2006.01) C11D 1/825 (2006.01)
A61K 8/37 (2006.01) A61Q 19/00 (2006.01)
A61K 8/39 (2006.01) A61K 9/00 (2006.01)

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/US2006/008782

(22) International Filing Date: 10 March 2006 (10.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/660,843 10 March 2005 (10.03.2005) US

(84) Designated States (unless otherwise indicated, for every kind of regional protection available):

ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant: 3M INNOVATIVE PROPERTIES COMPANY [US/US]; 3m Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(72) Inventors: KANTNER, Steven S.; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US). SCHOLZ, Matthew T.; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US). WANG, Danli; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(74) Agents: LAMBERT, Nancy M., et al.; 3M Center, Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

9 November 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ANTIMICROBIAL PET WIPES

(57) Abstract: The present application provides pet wipes with antimicrobial compositions, and methods of using the pet wipes.



WO 2006/099232 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/008782

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61Q17/00 A61K8/02 A61K8/37 A61K8/39 C11D1/66
 C11D1/825 A61Q19/00 A61K9/00

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)

A61K 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 practical, 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	WO 00/71183 A (3M INNOVATIVE PROPERTIES COMPANY) 30 November 2000 (2000-11-30) claims 1-6,8-11,14 page 9, lines 5-15 pages 16-17; examples 18,25; table 4 pages 18-19; examples 29-31,35-37,39; table 5	1-3,5-18
Y	US 5 569 461 A (ANDREWS ET AL) 29 October 1996 (1996-10-29) claims 1-8 column 2, lines 44-52 column 4; example 1 column 6; examples 4,5	1-3,5-18

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 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: 7 July 2006
 Date of mailing of the international search report: 19. 09. 2006

Name and mailing address of the ISA/
 European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer:
 Grillenberger, Sonja

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/008782

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 95/07616 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 23 March 1995 (1995-03-23) claims 1,5 page 8, lines 6-16 page 12; table 2	1-3,5-18
Y	JP11113780: "Anti microbial moist tissue paper for wrapping fruits, cleansing skin etc - has non-woven cellulose fabric impregnated with predetermined quantity of aqueous solution containing poly:lysine, glycerol fatty acid ester and ethanol" DERWENT, 27 April 1999 (1999-04-27), XP002191633 abstract	1-3,5-18
Y	WO 03/037293 A (COGNIS DEUTSCHLAND GMBH & CO. KG; HENSEN, HERMANN; LAZAROWITZ, VIRGINI) 8 May 2003 (2003-05-08) claims 1,6 pages 23-24	1-3,5-18
A	US 4 002 775 A (KABARA ET AL) 11 January 1977 (1977-01-11) column 3, line 53 column 4, line 67 - column 5, line 2 column 6, line 56	1-18
P,X	WO 2005/022998 A (3M INNOVATIVE PROPERTIES COMPANY) 17 March 2005 (2005-03-17) claims 1,3,33,36,39,40,4259 page 13, line 3 - page 14, line 8 page 3, lines 3-11 page 4, line 25 page 8, lines 11,12 page 23, line 18	1-3,5-18
A	DE 101 61 885 A1 (BEIERSDORF AG) 10 July 2003 (2003-07-10) claims 11,24 page 23, paragraph 146 examples	1-18
A	WO 92/21320 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 10 December 1992 (1992-12-10) claims 8,9 examples 1-8	1-18
	----- -/--	

INTERNATIONAL SEARCH REPORT

international application No
PCT/US2006/008782

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KABARA J J ET AL: "ANTIMICROBIAL LIPIDS: NATURAL AND SYNTHETIC FATTY ACIDS AND MONOGLYCERIDES" LIPIDS, CHAMPAIGN, IL, US, vol. 12, no. 9, 1 September 1977 (1977-09-01), pages 753-759, XP000563038 ISSN: 0024-4201 abstract introduction	1-18
A	EP 0 191 217 A (AMANO PHARMACEUTICAL CO., LTD) 20 August 1986 (1986-08-20) page 3, paragraph 1 page 3, lines 18-23	1-18
A	BRANEN J K ET AL: "Enhancement of nisin, lysozyme, and monolaurin antimicrobial activities by ethylenediaminetetraacetic acid and lactoferrin" BIOSIS, 1 January 2004 (2004-01-01), XP002316393 Int.J. Food Microbiology abstract	1-18

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/008782

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.:

1-3 (part), 5-18 (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: 1-3 (part),5-18 (part)

A wipe for companion animals comprising a substrate impregnated with an antimicrobial composition comprising an effective amount of an antimicrobial lipid component comprising

a) a (C7-C14) saturated fatty acid ester of propylene glycol, alkoxyated derivatives thereof, or combinations thereof, wherein the alkoxyated derivative has less than 5 moles of alkoxide per mole of polyhydric alcohol.

2. claims: 1-3 (part), 5-18 (part)

A wipe for companion animals comprising a substrate impregnated with an antimicrobial composition comprising an effective amount of an antimicrobial lipid component comprising

b) a (C8-C22) unsaturated fatty acid ester of propylene glycol, alkoxyated derivatives thereof, or combinations thereof, wherein the alkoxyated derivative has less than 5 moles of alkoxide per mole of polyhydric alcohol.

3. claims: 1 (part),3 (part), 5-18 (part)

A wipe for companion animals comprising a substrate impregnated with an antimicrobial composition comprising an effective amount of an antimicrobial lipid component comprising

c) a (C7-C14) saturated fatty ether of a polyhydric alcohol, alkoxyated derivatives thereof, or combinations thereof, wherein the alkoxyated derivative has less than 5 moles of alkoxide per mole of polyhydric alcohol.

4. claims: 1 (part), 3-18 (part)

A wipe for companion animals comprising a substrate impregnated with an antimicrobial composition comprising an effective amount of an antimicrobial lipid component comprising

d) a (C7- C14) saturated fatty alcohol ester of a (C2-C8) hydroxycarboxylic acid, alkoxyated derivatives thereof, or combinations thereof, wherein the alkoxyated derivative has less than 5 moles of alkoxide per mole of hydroxycarboxylic acid.

5. claims: 1 (part), 3-18 (part)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A wipe for companion animals comprising a substrate impregnated with an antimicrobial composition comprising an effective amount of an antimicrobial lipid component comprising

e) a (C8 - C22) mono- or poly-unsaturated fatty alcohol ester of a (C2-C8) hydroxycarboxylic acid, alkoxyated derivatives thereof, or combinations thereof, wherein the alkoxyated derivative has less than 5 moles of alkoxide per mole of hydroxycarboxylic acid.

6. claims: 1 (part), 3 (part), 5-18 (part)

A wipe for companion animals comprising a substrate impregnated with an antimicrobial composition comprising an effective amount of an antimicrobial lipid component comprising

f) a (C8 - C22) unsaturated fatty ether of a polyhydric alcohol, alkoxyated derivatives thereof, or combinations thereof, wherein the alkoxyated derivative has less than 5 moles of alkoxide per mole of polyhydric alcohol.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/008782

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0071183	A	30-11-2000	AU 761563 B2	05-06-2003
			AU 5151000 A	12-12-2000
			BR 0010740 A	19-02-2002
			DE 60006227 D1	04-12-2003
			DE 60006227 T2	05-08-2004
			EP 1178850 A1	13-02-2002
			ES 2209894 T3	01-07-2004
			JP 2003500554 T	07-01-2003
US 5569461	A	29-10-1996	NONE	
WO 9507616	A	23-03-1995	AU 692478 B2	11-06-1998
			AU 7868494 A	03-04-1995
			CA 2169559 A1	23-03-1995
			DE 69413701 D1	05-11-1998
			DE 69413701 T2	01-04-1999
			EP 0719089 A1	03-07-1996
			JP 9502608 T	18-03-1997
			JP 2005296021 A	27-10-2005
			US 5490992 A	13-02-1996
			US 5460833 A	24-10-1995
			WO 03037293	A
JP 2005511554 T	28-04-2005			
US 2006039956 A1	23-02-2006			
US 4002775	A	11-01-1977	NONE	
WO 2005022998	A	17-03-2005	AU 2004270258 A1	17-03-2005
			CA 2538103 A1	17-03-2005
			EP 1662873 A2	07-06-2006
DE 10161885	A1	10-07-2003	WO 03051319 A1	26-06-2003
			EP 1458332 A1	22-09-2004
WO 9221320	A	10-12-1992	AU 650564 B2	23-06-1994
			AU 2234992 A	08-01-1993
			CA 2107993 A1	08-12-1992
			DE 69201565 D1	06-04-1995
			DE 69201565 T2	21-09-1995
			EP 0587797 A1	23-03-1994
			JP 6508147 T	14-09-1994
EP 0191217	A	20-08-1986	DE 3561892 D1	21-04-1988
			ES 8701832 A1	01-03-1987
			JP 1724053 C	24-12-1992
			JP 4012112 B	03-03-1992
			JP 61181390 A	14-08-1986
			NL 8600148 A	01-09-1986