

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number  
**WO 2004/037225 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 9/12**, 7/00,  
A01N 25/16, A61K 47/24

(21) International Application Number:  
PCT/IB2003/005527

(22) International Filing Date: 24 October 2003 (24.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
152486 25 October 2002 (25.10.2002) IL  
60/429,546 29 November 2002 (29.11.2002) US

(71) Applicant (for all designated States except US): **FOAMIX LTD.** [IL/IL]; 2 Hashaked Street, 74104 Ness Ziona (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TAMARKIN, Dov** [IL/IL]; 537 Har Hila Street, Maccabim (IL). **FRIEDMAN, Doron** [IL/IL]; 33 Alon Street, Karmeit-Yosef (IL). **EINI, Meir** [IL/IL]; 2 Hashaked Street, Ness Ziona (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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

**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:  
29 December 2004

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: COSMETIC AND PHARMACEUTICAL FOAM

(57) Abstract: The invention relates to an alcohol-free cosmetic or pharmaceutical foam carrier comprising water, a hydrophobic solvent, a foam adjuvant agent, a surface-active agent and a water gelling agent. The cosmetic or pharmaceutical foam carrier does not contain aliphatic alcohols, making it non-irritating and non-drying. The alcohol-free foam carrier is suitable for inclusion of both water-soluble and oil soluble pharmaceutical and cosmetic agents.



# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/05527

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61K9/12 A61K7/00 A01N25/16 A61K47/24

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 A61K 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, EMBASE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 03/051294 A (MEDICIS PHARMACEUTICALS) 26 June 2003 (2003-06-26) example 1	1-87
X	----- US 5 326 557 A (MALCZWESKI REGINA M ET AL) 5 July 1994 (1994-07-05) See table II the whole document	1-87
X	----- US 5 435 996 A (MALCZWESKI REGINA M ET AL) 25 July 1995 (1995-07-25) the whole document	1-87
X	----- US 2002/072544 A1 (MILLER DENNIS ET AL) 13 June 2002 (2002-06-13) examples	1-87
	----- -/--	

Further documents are listed in the continuation of box C.

Patent family members are listed in 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

5 July 2004

Date of mailing of the international search report

**28. 10. 2004**

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

Giménez Miralles, J

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/05527

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 093 408 A (HASENOEHL ERIK JOHN ET AL) 25 July 2000 (2000-07-25) the whole document -----	1-87
X	US 5 922 331 A (MAUSNER JACK) 13 July 1999 (1999-07-13) the whole document -----	1-87
X	US 5 641 480 A (VERMEER ROBERT) 24 June 1997 (1997-06-24) the whole document -----	1-87
X	US 2002/098215 A1 (SIMONNET JEAN-THIERRY ET AL) 25 July 2002 (2002-07-25) the whole document -----	1-87
X	US 2002/035046 A1 (TAHAR MAURICE ET AL) 21 March 2002 (2002-03-21) the whole document -----	1-87
Y	WO 91/11991 A (KABI PHARMACIA AB) 22 August 1991 (1991-08-22) the whole document -----	1-87
Y	US 6 423 323 B2 (NEUBOURG FRITZ) 23 July 2002 (2002-07-23) cited in the application the whole document -----	1-87
Y	US 5 536 743 A (BORGMAN ROBERT J) 16 July 1996 (1996-07-16) cited in the application the whole document -----	1-87
Y	US 5 679 324 A (LISBOA LOUIS SERGIO ET AL) 21 October 1997 (1997-10-21) cited in the application the whole document -----	1-87
A	US 5 034 220 A (BURLANT WILLIAM J ET AL) 23 July 1991 (1991-07-23) column 7 -----	1-87

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/05527

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03051294	A	26-06-2003	US 2002164381 A1 CA 2470582 A1 WO 03051294 A2	07-11-2002 26-06-2003 26-06-2003
US 5326557	A	05-07-1994	US 5435996 A	25-07-1995
US 5435996	A	25-07-1995	US 5326557 A	05-07-1994
US 2002072544	A1	13-06-2002	DE 10035930 A1 EP 1174180 A1 JP 2002128635 A	31-01-2002 23-01-2002 09-05-2002
US 6093408	A	25-07-2000	NONE	
US 5922331	A	13-07-1999	NONE	
US 5641480	A	24-06-1997	NONE	
US 2002098215	A1	25-07-2002	FR 2804015 A1 BR 0100424 A CA 2332469 A1 EP 1120102 A2 JP 2001226221 A	27-07-2001 25-09-2001 21-07-2001 01-08-2001 21-08-2001
US 2002035046	A1	21-03-2002	AU 9735901 A CA 2365818 A1 CN 1366874 A EP 1216685 A2 JP 2002322045 A AU 5764800 A WO 0101949 A1 US 2004167046 A1	27-06-2002 21-06-2002 04-09-2002 26-06-2002 08-11-2002 22-01-2001 11-01-2001 26-08-2004
WO 9111991	A	22-08-1991	AT 151982 T DE 69125825 D1 EP 0514465 A1 FI 923548 A JP 5504571 T NO 923078 A WO 9111991 A1	15-05-1997 28-05-1997 25-11-1992 07-08-1992 15-07-1993 28-09-1992 22-08-1991
US 6423323	B2	03-01-2002	AT 210954 T AU 9162498 A CA 2300054 A1 DE 29824538 U1 DE 29824900 U1 DE 29825037 U1 DE 59802564 D1 DK 1014916 T3 WO 9908649 A2 EP 1014916 A2 ES 2170522 T3 JP 2001515022 T PT 1014916 T US 2003059394 A1 US 2002001599 A1	15-01-2002 08-03-1999 25-02-1999 16-08-2001 15-05-2003 29-04-2004 31-01-2002 15-04-2002 25-02-1999 05-07-2000 01-08-2002 18-09-2001 28-06-2002 27-03-2003 03-01-2002
US 5536743	A	16-07-1996	US 4837378 A	06-06-1989

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB 03/05527

## 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:  
  
Although claims 66-87 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.: 1,16,66 partially  
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:  
see FURTHER INFORMATION sheet PCT/ISA/210
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, 16, 66 partially

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: 1,16,66 partially

A foamable carrier composition comprising 1) hydrophobic solvent, 2) water, 3) foam adjuvant, 4) surfactant, and 5) gelling agent; and a pharmaceutical or cosmetic composition comprising said foamable carrier.

---

2. claims: 1,16,66 partially

A foam generator/dispenser (pressurized container) comprising a container and a liquified or compressed gas propellant

---

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

-----

Continuation of Box I.2

Claims Nos.: 1,16,66 partially

Present independent claim 1 relates to an extremely large number of possible foamable carrier compositions, namely all those comprising 1) a hydrophobic solvent, 2) water, 3) a foam adjuvant, 4) a surfactant, and 5) a gelling agent (with no restriction or limitation). Said definition covers so many possible options and alternatives lacking support and/or disclosure in the description (Articles 5 and 6 PCT) as to render a meaningful search impossible. It is the same for independent claims 16 and 66. Moreover, said foamable carrier composition is defined by reference to the result to be achieved, expressed in terms of a desirable characteristic or property, namely that upon release of a pharmaceutical or cosmetic composition comprising said foamable carrier composition from a pressurized container it produces a "breakable foam". The claims cover all foamable carrier compositions comprising the components 1)-5) and having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compositions. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Further, the claims also lack clarity (Article 6 PCT), because the definition by reference to a result to be achieved only amounts to claiming the technical problem to be solved instead of claiming the relevant technical features which amount to its solution. Moreover, the expression "breakable foam" is unclear. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to claims 1, 16 and 66 taken in combination with claims 6 and 12 and the examples.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.



# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/05527

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 5536743	A	US 5840744 A	24-11-1998	
		AT 103176 T	15-04-1994	
		AU 635752 B2	01-04-1993	
		AU 5829490 A	07-01-1991	
		BR 9006793 A	06-08-1991	
		CA 1337279 C	10-10-1995	
		CN 1049101 A ,B	13-02-1991	
		DE 69007547 D1	28-04-1994	
		DE 69007547 T2	14-07-1994	
		DK 404376 T3	24-05-1994	
		EP 0404376 A2	27-12-1990	
		ES 2062366 T3	16-12-1994	
		HU 56490 A2	30-09-1991	
		IE 65413 B1	18-10-1995	
		IL 94619 A	24-01-1995	
		JP 2999820 B2	17-01-2000	
		JP 4500365 T	23-01-1992	
		KR 169487 B1	15-01-1999	
		PL 285507 A1	13-01-1992	
		RO 109156 B1	30-12-1994	
		RU 2032402 C1	10-04-1995	
		WO 9014832 A1	13-12-1990	
		ZA 9004413 A	24-04-1991	
		AT 103813 T	15-04-1994	
		AU 3043289 A	11-08-1989	
		AU 621589 B2	19-03-1992	
		CA 1297029 C	10-03-1992	
		CN 1035435 A ,B	13-09-1989	
		DE 68914365 D1	11-05-1994	
		DE 68914365 T2	11-08-1994	
		EP 0355152 A1	28-02-1990	
		JP 2503004 T	20-09-1990	
JP 2714464 B2	16-02-1998			
KR 135313 B1	23-04-1998			
WO 8906537 A1	27-07-1989			
ZA 8900233 A	26-09-1990			
-----				
US 5679324	A	21-10-1997	NONE	
-----				
US 5034220	A	23-07-1991	AU 7851191 A	07-01-1992
			CA 2082829 A1	21-12-1991
			EP 0581764 A1	09-02-1994
			WO 9119477 A1	26-12-1991
-----				