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(54) Title: ORAL CARE COMPOSITIONS AND METHODS

(57) Abstract: The present invention relates to oral care compositions. The oral care compositions include an adhesive component and an oral care active, and are combined with a viscosity index improver and/or a water insoluble component. The present invention is also directed to methods relating to the oral care compositions.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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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)

A61Q A61K

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)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/03641 A1 (BASF AG [DE]; MUELLER MICHAEL WOLFGANG [DE]; WESTENFELDER HORST [DE];) 6 February 1997 (1997-02-06) page 4; table 1	1-15
X	----- WO 2007/056605 A1 (PROCTER & GAMBLE [US]; RAJAJIAH JAYANTH [US]; CULBERTSON ROBERT HARGITT) 18 May 2007 (2007-05-18) examples 1-4 claims 1-8	1-15
X	----- US 6 241 972 B1 (HERMS JAMES K [US] ET AL) 5 June 2001 (2001-06-05) examples 6-8 claims 1-10 ----- -/--	1-15

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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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.
X	US 2004/101492 A1 (DOLAN LAWRENCE EDWARD [US] ET AL) 27 May 2004 (2004-05-27) examples 1-3 claims 7,8 -----	1-15
X	GB 1 492 660 A (COLGATE PALMOLIVE CO) 23 November 1977 (1977-11-23) examples 1,3 -----	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/045887

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9703641	A1	06-02-1997	NONE
-----	-----	-----	-----
WO 2007056605	A1	18-05-2007	AU 2006311445 A1 18-05-2007
		AU 2006311446 A1 18-05-2007	
		AU 2006311447 A1 18-05-2007	
		AU 2006311448 A1 18-05-2007	
		AU 2006311449 A1 18-05-2007	
		AU 2006311450 A1 18-05-2007	
		AU 2006311451 A1 18-05-2007	
		AU 2006311452 A1 18-05-2007	
		CA 2627751 A1 18-05-2007	
		CA 2627754 A1 18-05-2007	
		CA 2627774 A1 18-05-2007	
		CA 2627918 A1 18-05-2007	
		CA 2627922 A1 18-05-2007	
		CA 2628058 A1 18-05-2007	
		CA 2628101 A1 18-05-2007	
		CA 2628103 A1 18-05-2007	
		EP 1945174 A1 23-07-2008	
		EP 1945175 A2 23-07-2008	
		EP 1945176 A1 23-07-2008	
		EP 1945177 A1 23-07-2008	
		EP 1948115 A1 30-07-2008	
		EP 1948116 A1 30-07-2008	
		EP 1948117 A1 30-07-2008	
		EP 1948118 A2 30-07-2008	
		JP 2009513311 T 02-04-2009	
		JP 2009514981 T 09-04-2009	
		JP 2009514982 T 09-04-2009	
		JP 2009514647 T 09-04-2009	
		JP 2009514648 T 09-04-2009	
		JP 2009514649 T 09-04-2009	
		JP 2009514650 T 09-04-2009	
		JP 2009514983 T 09-04-2009	
		KR 20080055988 A 19-06-2008	
		KR 20080055993 A 19-06-2008	
		KR 20080055994 A 19-06-2008	
		KR 20080055995 A 19-06-2008	
		KR 20080055996 A 19-06-2008	
		KR 20080055997 A 19-06-2008	
		KR 20080055998 A 19-06-2008	
		KR 20080055999 A 19-06-2008	
		WO 2007056606 A1 18-05-2007	
		WO 2007056607 A2 18-05-2007	
		WO 2007056608 A1 18-05-2007	
		WO 2007056609 A1 18-05-2007	
WO 2007056605	A1	WO 2007056610 A1 18-05-2007	
		WO 2007056611 A1 18-05-2007	
		WO 2007056612 A2 18-05-2007	
-----	-----	-----	-----
US 6241972	B1	05-06-2001	AT 308304 T 15-11-2005
		AU 2563800 A 04-09-2000	
		BG 105910 A 30-04-2002	
		BR 0008960 A 27-11-2001	
		CA 2365254 A1 24-08-2000	
		CN 1344150 A 10-04-2002	
		CZ 20012989 A3 16-01-2002	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/045887

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
		DE 60023652 D1	08-12-2005	
		DE 60023652 T2	10-08-2006	
		DK 1152738 T3	16-01-2006	
		EP 1152738 A1	14-11-2001	
		ES 2249246 T3	01-04-2006	
		WO 0048561 A1	24-08-2000	
		HU 0200158 A2	29-05-2002	
		JP 2002540085 T	26-11-2002	
		MX PA01008431 A	10-03-2004	
		NO 20014025 A	19-10-2001	
		NZ 513617 A	28-09-2001	
		PL 351136 A1	24-03-2003	
		TR 200102402 T2	21-01-2002	
		ZA 200106807 A	21-08-2002	

US 2004101492	A1	27-05-2004	AU 2003291814 A1	18-06-2004
			BR 0316647 A	11-10-2005
			CA 2504539 A1	10-06-2004
			EP 1565152 A1	24-08-2005
			JP 2006514117 T	27-04-2006
			MX PA05005702 A	26-07-2005
			WO 2004047783 A1	10-06-2004

GB 1492660	A	23-11-1977	FR 2327762 A1	13-05-1977
			JP 1384154 C	09-06-1987
			JP 52054038 A	02-05-1977
			JP 61052123 B	12-11-1986
