

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 October 2007 (04.10.2007)

PCT

(10) International Publication Number  
**WO 2007/111898 A3**

(51) International Patent Classification:

*CIID 3/20* (2006.01)      *CIID 3/37* (2006.01)  
*CIID 3/12* (2006.01)      *CIID 3/382* (2006.01)  
*CIID 1/74* (2006.01)      *CIID 17/00* (2006.01)  
*CIID 3/22* (2006.01)

[US/US]; 10010 Voyager Lane, Cincinnati, Ohio 45252 (US).

(74) Common Representative: **THE PROCTER & GAMBLE COMPANY**; c/o Eileen L. Hughett, The Procter & Gamble Company, Winton Hill Business Center, 6110 Center Hill Road, Cincinnati, Ohio 45224 (US).

(21) International Application Number:

PCT/US2007/006984

(22) International Filing Date: 20 March 2007 (20.03.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/784,826      22 March 2006 (22.03.2006)      US  
60/815,781      22 June 2006 (22.06.2006)      US

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, 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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(71) Applicant (for all designated States except US): **THE PROCTER & GAMBLE COMPANY** [US/US]; One Procter & Gamble Plaza, Cincinnati, Ohio 45202 (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, MT, 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).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PANANDIKER, Rajan, Keshav** [US/US]; 4360 Tylers Estates Drive, West Chester, Ohio 45069 (US). **VETTER, Kerry, Andrew** [US/US]; 2769 Mahoning Court, Cincinnati, Ohio 45233-4236 (US). **DUNLOP, David, Scott** [US/US]; 4364 South Mallard Cove, Mason, Ohio 45040 (US). **GLADNEY, David. HODSON, Stephen, Joseph** [US/US]; 35674 Dunlap Court, Mason, Ohio 45040 (US). **BRAECKMAN, Karl, Ghislain** [BE/BE]; Rue de la Chapelle 59, B-6280 Gerpinnes (BE). **DEPOOT, Karel, Jozef Maria** [BE/BE]; Oudenaardestraat 72, B-8570 Anzegem-vichte (BE). **FRANKENBACH, Gayle, Marie**

Published:

— with international search report

(88) Date of publication of the international search report:  
15 November 2007

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: LIQUID TREATMENT COMPOSITION

(57) Abstract: According to the present invention there is provided a pearlescent liquid treatment composition suitable for use as a laundry or hard surface cleaning composition comprising a rheology modifier providing a high shear viscosity at 20 sec-land 21°C of from 1500 cps, and a pearlescent agent, said pearlescent agent having DO.99 volume particle size of less than 50 µm, or wherein the difference in refractive index (AN) of the medium in which the pearlescent agent is suspended and the pearlescent agent is greater than 0.02.



WO 2007/111898 A3

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/US2007/006984

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. C11D3/20 C11D3/12 C11D1/74 C11D3/22 C11D3/37  
 C11D3/382 C11D17/00

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)  
 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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 463 780 A2 (UNILEVER PLC [GB]; UNILEVER NV [NL] UNILEVER NV [NL]) 2 January 1992 (1992-01-02) page 4; claims; examples 1-3,8-11 -----	1-7, 9-14,16
X	GB 2 124 245 A (KAO CORP) 15 February 1984 (1984-02-15) page 4, line 28 - line 49; claims; example 4 -----	1-4,7, 11-13,16
X	US 3 532 635 A (HANS HARVEY B) 6 October 1970 (1970-10-06) claims; examples -----	1-5,7, 12-14,16
X	US 4 544 498 A (SUZUKI TOSHIO [JP]) 1 October 1985 (1985-10-01)  column 4; claims; examples 1,2,4 ----- -/--	1-5,7, 11,12, 14,16

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

21 August 2007

Date of mailing of the international search report

30/08/2007

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

Pfannenstein, Heide

## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/006984

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 2005/158268 A1 (SCHMUCKER-CASTNER JULIE F [US] ET AL) 21 July 2005 (2005-07-21) examples 1-3,5 -----	2-4, 7-14,16
A	WO 02/40627 A2 (PROCTER & GAMBLE [US]) 23 May 2002 (2002-05-23) cited in the application page 34; claims; examples -----	1-16
A	US 6 339 058 B1 (TOUSSAINT CHRISTINE [BE] ET AL) 15 January 2002 (2002-01-15) column 6; claims; examples -----	1-16
X	US 2005/048014 A1 (LINZ PHIL [US] ET AL LINZ PHIL [US] ET AL) 3 March 2005 (2005-03-03) claims; examples -----	1-4,7, 9-14,16

# INTERNATIONAL SEARCH REPORT

information on patent family members

International application No

PCT/US2007/006984

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0463780	A2	02-01-1992	AT 133064 T 15-02-1996
			AU 636231 B2 22-04-1993
			AU 7846091 A 02-01-1992
			BR 9102568 A 21-01-1992
			CA 2022901 A1 21-12-1991
			DE 69116448 D1 29-02-1996
			DE 69116448 T2 20-06-1996
			ES 2082139 T3 16-03-1996
			GB 2245279 A 02-01-1992
			GR 3019253 T3 30-06-1996
			IN 171889 A1 30-01-1993
			JP 1900717 C 27-01-1995
			JP 4243812 A 31-08-1992
			JP 6021051 B 23-03-1994
ZA 9104743 A 24-02-1993			
<hr style="border-top: 1px dashed black;"/>			
GB 2124245	A	15-02-1984	CA 1212297 A1 07-10-1986
			DE 3370650 D1 07-05-1987
			EP 0101920 A1 07-03-1984
			ES 8506077 A1 16-10-1985
			HK 54587 A 31-07-1987
			JP 1343493 C 29-10-1986
			JP 59020396 A 02-02-1984
			JP 61010517 B 29-03-1986
			MX 157180 A 31-10-1988
			MY 54687 A 31-12-1987
			PH 18813 A 27-09-1985
			SG 28187 G 10-07-1987
			US 4534892 A 13-08-1985
			<hr style="border-top: 1px dashed black;"/>
US 3532635	A	06-10-1970	NONE
<hr style="border-top: 1px dashed black;"/>			
US 4544498	A	01-10-1985	CA 1218309 A1 24-02-1987
			DE 3483666 D1 10-01-1991
			EP 0130609 A2 09-01-1985
			ES 8603558 A1 16-04-1986
			HK 49492 A 17-07-1992
			JP 1041123 B 04-09-1989
			JP 1555619 C 23-04-1990
			JP 60013706 A 24-01-1985
			PH 20157 A 09-10-1986
			SG 47392 G 12-06-1992
			<hr style="border-top: 1px dashed black;"/>
US 2005158268	A1	21-07-2005	NONE
<hr style="border-top: 1px dashed black;"/>			
WO 0240627	A2	23-05-2002	AU 3947502 A 27-05-2002
			BR 0114910 A 14-10-2003
			CA 2424447 A1 23-05-2002
			CN 1471571 A 28-01-2004
			EP 1328616 A2 23-07-2003
			JP 2004514050 T 13-05-2004
			MX PA03003739 A 28-07-2003
<hr style="border-top: 1px dashed black;"/>			
US 6339058	B1	15-01-2002	US 6380150 B1 30-04-2002
<hr style="border-top: 1px dashed black;"/>			
US 2005048014	A1	03-03-2005	NONE
<hr style="border-top: 1px dashed black;"/>			