



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification⁶ : C11D 1/86, 3/37, 3/34 // C11D 1:14, 1:22, 1:29, 1:62, 1:72, 1:75, 1:52	A3	(11) International Publication Number: WO 98/20092 (43) International Publication Date: 14 May 1998 (14.05.98)
(21) International Application Number: PCT/US97/19899 (22) International Filing Date: 3 November 1997 (03.11.97) (30) Priority Data: 60/030,757 1 November 1996 (01.11.96) US (71) Applicant: THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). (72) Inventors: DE-CERDA, Luisa Navarro; Urb. Monterrey Calle A Las Cimas Town House Letra D, La Trinidad Caracas (VE). PRADA-SILVY, Ricardo Alfredo; Ur- banizacion Cumbres de Curumo, Caracas 1080 (VE). MASSEY-BROOKER, Anju, Deepali; 41 Polwarth Road, Brunton Park, Gosforth, Newcastle upon Tyne NE3 5NE (GB). GUEDIRA, Nour-Eddine; 115D Osborne Road, Jesmond, Newcastle upon Tyne NE2 2TA (GB). (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).		(81) Designated States: BR, CA, CN, MX. Published <i>With international search report.</i> (88) Date of publication of the international search report: 8 October 1998 (08.10.98)
(54) Title: LAUNDRY DETERGENT COMPOSITIONS COMPRISING SOIL RELEASE POLYMER		
(57) Abstract		
<p>The subject invention involves laundry detergent compositions, preferably in granular form, particularly useful for machine laundry operations. The compositions comprise: a) from about 6 % to about 18 % surfactant comprising 1) from about 5 % to about 10 % anionic surfactant selected from alkylbenzene sulfonate surfactant, alkyl sulfate surfactant and alkyl ethoxy ether sulfate surfactant; 2) from about 0.2 % to about 4 % hydroxyalkyl quaternary ammonium cationic surfactant; and 3) from 0.4 % to about 8 % nonionic surfactant selected from alkyl ethoxy alcohol surfactant, amine oxide surfactant, and polyhydroxy fatty acid amide surfactant; b) from about 0.05 to about 4 % polymeric soil release agent comprising: 1) from about 10 % to about 99.5 % esters comprising, per mole of said ester: i) from about 1 to about 2 moles of sulfonated polyethoxy/propoxy end-capping units; ii) from about 0.5 to about 66 moles of units selected from the group consisting of a) oxyethyleneoxy units; b) a mixture of oxyethyleneoxy and oxy-1,2-propyleneoxy units; and c) a mixture of a) or b) with poly(oxyethylene)oxy units; iii) from about 1.5 to about 40 moles of terephthaloyl units; and iv) from 0 to about 26 moles of 5-sulfoisophthaloyl units; 2) from about 0.5 % to about 20 % crystallization-reducing stabilizer selected from sulfonate-type hydrotrope, alkylbenzene sulfonate, paraffin sulfonate, and mixtures thereof; and c) from about 80 % to about 94 % other components.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 97/19899

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C11D1/86 C11D3/37 C11D3/34 //C11D1:14,C11D1:22,
C11D1:29,C11D1:62,C11D1:72,C11D1:75,C11D1:52

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 6 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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 92 06152 A (THE PROCTER & GAMBLE CO.) 16 April 1992 see claims 1-14 see page 9, line 33 - page 23, line 16 ---	1-11
Y	EP 0 199 403 A (THE PROCTER & GAMBLE CO.) 29 October 1986 see claims 1,5-11 see column 9, line 15 - column 14, line 8 ---	1-11
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search <p style="text-align: center; font-size: 1.2em;">28 July 1998</p>	Date of mailing of the international search report <p style="text-align: center; font-size: 1.2em;">07/08/1998</p>
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 <p style="text-align: center; font-size: 1.2em;">Serbetsoglou, A</p>

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 97/19899

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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A	DE 44 40 956 A (HENKEL KGAA.) 23 May 1996 see page 2, line 59 - page 5, line 9 see claims; example 2 -----	1,3,4,6, 10
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