



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 407 187 A3

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **90307343.5**

(51) Int. Cl.⁵: **C11D 3/12, C11D 3/37,
C11D 3/08, C11D 3/395**

(22) Date of filing: **05.07.90**

(30) Priority: **07.07.89 US 376468
29.01.90 US 474708**

(43) Date of publication of application:
09.01.91 Bulletin 91/02

(84) Designated Contracting States:
CH DE ES FR GB IT LI NL SE

(88) Date of deferred publication of the search report:
17.07.91 Bulletin 91/29

(71) Applicant: **UNILEVER PLC**
Unilever House Blackfriars P.O. Box 68
London EC4P 4BQ(GB)
(84) **GB**

Applicant: **UNILEVER NV**
Burgemeester s'Jacobplein 1 P.O. Box 760
NL-3000 DK Rotterdam(NL)

(84) **CH DE ES FR IT LI NL SE**

(72) Inventor: **Corring, Robert John**
69 Miami Trail
Rockaway Township, New Jersey 07866(US)
Inventor: **Goedhart, Machiel**
Laan Van Nieuw Blankenburg 66
NL-3181 DC Rozenburg(NL)
Inventor: **Christiano, Steven Patrick**
22 Essex Avenue
Maplewood, New Jersey 07040(US)
Inventor: **Krupa, Jerry Jaroslav**
19 Oneida Avenue
Rockaway Township, New Jersey 07866(US)
Inventor: **Kielman, Hendrik Simon**
Appartment B10, 153 Rue de la Basse
F-59000 Lille(FR)

(74) Representative: **Tan, Bian An, Ir. et al**
Unilever N.V. Patent Division P.O. Box 137
NL-3130 AC Vlaardingen(NL)

EP 0 407 187 A3

(54) **Aqueous thixotropic cleaning composition.**

(57) Aqueous liquid cleaning compositions incorporate as thickeners a combination of clays of particle size 0.001 to 1 micron and polymeric thickener agents. This combination imparts not only beneficial viscosity to the compositions, but also improves phase stability and reduces loss of chlorine bleach in the aqueous environment. Moreover, the non-phosphate cleaning compositions of the invention have surprisingly effective cleaning performance.



EUROPEAN SEARCH REPORT

EP 90 30 7343

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X,A	EP-A-0 075 813 (HENKEL) * page 8, line 1 - page 9, line 13; claims 1, 4-10 * examples; page 14, lines 1 - 12 * - - -	1,3,6,7, 10,14,12	C 11 D 3/12 C 11 D 3/37 C 11 D 3/08
X	US-A-4 116 851 (L. RUPE) * column 3, line 1 - column 4, line 68; claims 1, 5, 6 * column 6, lines 14 -15; column 8, lines 1 - 3 * - - -	1,4,6,8, 10,11,14, 15	C 11 D 3/395 C 11 D 17/00
X,A	GB-A-2 140 450 (COLGATE-PALMOLIVE) * claims 1, 13, 31, 32 * examples 1, 5 * - - -	1,6,7,10, 14,12	
X	FR-A-2 568 888 (COLGATE-PALMOLIVE) * claims 1-4 * examples 2, 6 * - - -	1,6,9,10	
X	EP-A-0 264 975 (PROCTER & GAMBLE) * page 4, line 24 - page 5, line 58; claims 1-8 ** page 6, lines 22 - 27 * - - -	1-3,6,7,9, 10,14	
P,X	EP-A-0 329 419 (UNILEVER) * claims 1, 2, 10, 12 * example 4 * - - - - -	1,4,5,10, 14,15	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			C 11 D
Place of search		Date of completion of search	Examiner
The Hague		26 April 91	PFANNENSTEIN H.F.
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons ----- &: member of the same patent family, corresponding document			