

(19)



Europäisches Patentamt
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(11) Publication number:

0 364 067 A3

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **89305572.3**

(51) Int. Cl.⁵: **C11D 3/10, C11D 3/08,
C11D 3/37**

(22) Date of filing: **02.06.89**

(30) Priority: **12.10.88 US 256875**

(43) Date of publication of application:
18.04.90 Bulletin 90/16

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

(88) Date of deferred publication of the search report:
30.01.91 Bulletin 91/05

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(54) **High-carbonate automatic dishwashing detergent with decreased calcium salt deposition.**

(57) An automatic dishwashing detergent primarily comprised of an alkali-metal carbonate as the sole builder, alkali-metal silicates, and a calcium precipitation inhibitor system consisting of a low foaming surfactant, a low molecular weight polycarboxylic acid, and a small amount of a threshold inhibition agent. Optionally halogen, peroxygen or peracid bleaching species enzymes, fragrances, dyes and other adjuncts may be included. The composition provides good cleaning performance especially on starchy soils, and no appreciable calcium precipitates results, even in water having a hardness of at least about 400 ppm.

EP 0 364 067 A3



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EUROPEAN SEARCH REPORT

Application Number

EP 89 30 5572

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	US-A-4 608 188 (E.J. PARKER et al.) * Complete * - - -	1,2,4,5, 12,15,16	C 11 D 3/10 C 11 D 3/08 C 11 D 3/37														
Y D,X	US-A-3 579 455 (Ph.M. SABATELLI et al.) * Complete * - - -	3,6-11,14 13															
Y A Y	US-A-3 925 228 (BAO-DING-CHENG) * Complete * - - -	6-10,14 1,5,12,15 3,6,7, 9-11,14															
A X	US-A-3 627 686 (Ph.M. SABATELLI et al.) * Complete * - - -	1,5,15,16 13															
Y A E	EP-A-0 353 562 (HENKEL KGaA) * Complete * - - -	6,8,10 1,5,12,15 1-5,8,10, 11															
A	EP-A-0 186 088 (HENKEL KGaA) - - -		TECHNICAL FIELDS SEARCHED (Int. Cl.5)														
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A	EP-A-0 289 311 (UNILEVER PLC) - - -																
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A	GB-A-1 575 094 (PENNWALT CORP.) - - -																
A	GB-A-2 060 675 (COLGATE-PALMOLIVE CO.) - - - - -																
The present search report has been drawn up for all claims																	
Place of search The Hague		Date of completion of search 22 November 90	Examiner FISCHER W.H.F.														
<table border="0"><tr><td>CATEGORY OF CITED DOCUMENTS</td><td>E : earlier patent document, but published on, or after the filing date</td></tr><tr><td>X : particularly relevant if taken alone</td><td>D : document cited in the application</td></tr><tr><td>Y : particularly relevant if combined with another document of the same category</td><td>L : document cited for other reasons</td></tr><tr><td>A : technological background</td><td></td></tr><tr><td>O : non-written disclosure</td><td>& : member of the same patent family, corresponding document</td></tr><tr><td>P : intermediate document</td><td></td></tr><tr><td>T : theory or principle underlying the invention</td><td></td></tr></table>				CATEGORY OF CITED DOCUMENTS	E : earlier patent document, but published on, or after the filing date	X : particularly relevant if taken alone	D : document cited in the application	Y : particularly relevant if combined with another document of the same category	L : document cited for other reasons	A : technological background		O : non-written disclosure	& : member of the same patent family, corresponding document	P : intermediate document		T : theory or principle underlying the invention	
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