

Title (en)

USE IN DETERGENTS OF NEUTRALISED AND/OR AMIDISED POLYMERS CONTAINING CARBOXYL GROUPS

Publication

EP 0215251 B1 19890927 (DE)

Application

EP 86110543 A 19860730

Priority

DE 3528460 A 19850808

Abstract (en)

[origin: US4702858A] Washing agents contain, as additives for inhibiting redeposition and promoting the primary washing action, homopolymers of acrylic acid and of methacrylic acid, copolymers of acrylic acid and methacrylic acid and copolymers which contain, as essential components, (a) an ethylenically unsaturated dicarboxylic acid of 4 to 6 carbon atoms and (b) acrylic acid, methacrylic acid and/or hydroxy-C2-C6-alkyl esters of ethylenically unsaturated C3-C6-carboxylic acids as copolymerized units, where the homo- and copolymers in the form of the free acids have a weight average molecular weight of from 5000 to 500,000 in the neutralized or amidated form, the carboxyl groups of the homo- and copolymers in each case being partially or completely neutralized with amines of the formula <IMAGE> where R is C8-C18-alkyl or R1-O-CH2-(CH2)n-, n is from 1 to 3, R1 is C1-C18-alkyl, R2 and R3 are each H or C1-C18-alkyl and/or from 5 to 50% of the said carboxyl groups being in the form of amides derived from primary and secondary amines of the formula I.

IPC 1-7

C11D 3/37

IPC 8 full level

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CPC (source: EP US)

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Cited by

EP0442191A1; EP0368214A3; US5009805A

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DOCDB simple family (publication)

US 4702858 A 19871027; AT E46716 T1 19891015; CA 1265019 A 19900130; DE 3528460 A1 19870219; DE 3665883 D1 19891102; EP 0215251 A2 19870325; EP 0215251 A3 19871223; EP 0215251 B1 19890927; ES 2001072 A6 19880416; JP S6234996 A 19870214

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US 88895786 A 19860724; AT 86110543 T 19860730; CA 514584 A 19860724; DE 3528460 A 19850808; DE 3665883 T 19860730; EP 86110543 A 19860730; ES 8600935 A 19860807; JP 18206686 A 19860804