

Title (en)

Use of comb polymers as soil release polymers

Title (de)

Verwendung von Kammpolymeren als Schmutzablösepolymere

Title (fr)

Utilisations de polymères peignes comme polymères éliminant la saleté

Publication

EP 1035194 B1 20040915 (DE)

Application

EP 00102085 A 20000203

Priority

DE 19906367 A 19990216

Abstract (en)

[origin: DE19906367A1] Soil release polymers are comb polymers (I) obtained by condensation of: (a) a polycarboxylic acid or polyol; (b) optionally sulfonated di-, tri- or tetrahydric polyol(s) or polyglycols; (c) optionally 2-10 carbon dicarboxylic acid(s); and (d) compound(s) selected from mono- or di-alkyl- or -aryl-amines, alcohols or phenols, carboxylic acids, glycols or (poly)ether glycols and sulfonated alcohols. Compound(s) (III) selected from mono- or di-alkyl- or -aryl-amines (IIIA, IIIB), alcohols or phenols (IIIC), carboxylic acids (IIID), glycols or (poly)ether glycols (IIIE) and sulfonated alcohols (IIIF) are comprised of formulae: HO-(XO)a-H (II) NH2R (IIIA) NHR2 (IIIB) ROH (IIIC) R<1>COOH (IIID) HO(XO)bH (IIIE) HO(CH2CH2)dSO3K (IIIF) X = C2H4 and/or C3H7; a = 2-35, preferably 2-5; b = 2-40, preferably 3-20; d = 1-10, preferably 1-4; K = a cation; R = 1-22C alkyl or 6-10C aryl; R<1> = 1-22C alkyl or sulfoalkyl, 6-10C aryl or sulfoaryl; An Independent claim is also included for the production of the oligoester (I).

IPC 1-7

C11D 3/37

IPC 8 full level

C08G 63/668 (2006.01); **C08G 63/688** (2006.01); **C11D 3/37** (2006.01); **D06M 15/507** (2006.01)

CPC (source: EP US)

C11D 3/0036 (2013.01 - EP US); **C11D 3/37** (2013.01 - EP US); **C11D 3/3746** (2013.01 - EP US)

Cited by

DE102009020299A1; US8846599B2; DE102007013217A1; WO2012171849A1; WO2006133868A1; WO02062856A3; US9090741B2

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