

Title (en)
OLIGOMERIC HINDERED AMINE LIGHT STABILIZERS BASED ON MULTI-FUNCTIONAL CARBONYL COMPOUNDS AND METHODS OF MAKING SAME

Title (de)
OLIGOMERE GEHINDERTE AMIN-LICHTSTABILISATOREN AUF BASIS VON MULTIFUNKTIONELLEN CARBONYLVERBINDUNGEN UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)
PHOTOSTABILISANTS OLIGOMERES A AMINES INHIBEES A BASE DE COMPOSES CARBONYLE MULTIFONCTIONNELS ET PROCEDES DE PRODUCTION DESDITS STABILISANTS

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Application
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Priority

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Abstract (en)
[origin: WO02059090A2] Oligomeric compounds and methods of making the compound having formula (II) wherein i, j, k, and l are integers from about 0 to 300 and the sum of i, j, k, and l is greater than 2, wherein the units F, F', and T are derived from one or more multi-functional carbonyl compounds of general structure (IV): DO-CO-CR<a>R-(-CR<c>R<d>-)n-NH-(Y)m-CO-OD wherein n is an integer from 1 to 15, m is either 0 or 1; R<a>, R, R<c>, and R<d>, are each a hydrogen or a hydrocarbyl group; Y is CO-(CReRf)p, wherein R<e> and R<f> are each a hydrogen or hydrocarbyl group and p is zero or an integer from 1 to 20 or CO-C6-H4-, wherein the substitution pattern on the phenylene group is an ortho, meta, or para substitution pattern, and one or more of the hydrogens of the phenylene group may be substituted by a hydrocarbyl group or a functional group; and D is a hydrocarbyl group and the units E, E' and S are derived from one or more 1-substituted piperidin-4-ol or 4-aminopiperidines of general structure wherein Z is OH or NHG, wherein G is H or C1-C12 alkyl, R<1> is -(CH2)s-OH, -(CH2)s-NH2, C1-C18 hydroxyalkoxy or C5-C12 hydroxycycloalkoxy; wherein s is an integer from 1 to 10; R<2> represents hydrogen, C1-C8 alkyl, or benzyl; R<3>, R<4>, R<5>, and R<6> are each a hydrogen, C1-C8 alkyl, benzyl or phenethyl, or two geminal R moieties, which together with the carbon to which they are attached form a C5-C10 cycloalkyl. The compounds are useful for stabilizing polymer compositions against photo- and thermal degradation.

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