

Title (en)
METHOD FOR PREPARING POLYHYDROXY-URETHANES

Title (de)
VERFAHREN ZUR HERSTELLUNG VON POLYHYDROXYURETHANEN

Title (fr)
PROCEDE DE PREPARATION DE POLYHYDROXY-URETHANES

Publication
EP 2115084 A2 20091111 (FR)

Application
EP 08761823 A 20080131

Priority
• FR 2008000115 W 20080131
• FR 0700672 A 20070131

Abstract (en)
[origin: FR2911878A1] Production of monomeric, oligomeric or polymeric compounds (A) containing urethane group(s) and hydroxy function(s) involves reacting a hydroxylated cyclic carbonate (I), a linear carbonate (II), a primary and/or secondary amine (III) and optionally a catalyst (IV). (I)-(III) and optionally (IV) are contacted simultaneously, successively or sequentially, optionally in presence of a solvent. Production of monomeric, oligomeric or polymeric compounds (A) containing at least one urethane group and at least one hydroxy function involves reacting compound(s) (I) containing a cyclic carbonate function and hydroxy function(s) (the C of C-OH being connected to the C of CO by 3-4C), compound(s) (II) containing linear carbonate function(s), compound(s) (III) containing at least one (preferably at least two) primary and/or secondary amine function(s) and optionally catalyst(s) (IV). (I)-(III) and optionally (IV) are contacted simultaneously, successively or sequentially, optionally in presence of a solvent, to give (A), optionally after removal of the solvent and/or by-products. Independent claims are included for: (1) use of a phosphazene-type base (IV') as catalyst for carbonate ring closure reaction in a compound containing at least two hydroxy functions separated by 2 or 3 atoms; (2) compositions (B) (specifically aqueous, aqueous organic or organic formulations) containing (A) obtained by the process; (3) the production of an aqueous phase formulation (B') of a polyhydroxy-urethane (A'), by reacting compound(s) with at least one (preferably at least two) carbonate functions (at least one of which is cyclic), compound(s) with at least two primary and/or secondary amino group(s) and optionally compound(s) with one primary or secondary amino group in an aqueous phase (optionally containing an organic phase); and (4) use of an aqueous phase formulation (B'') of a polyhydroxy-urethane (A'') for the formation of coatings or adhesives or in the cosmetics section.

IPC 8 full level
C09D 175/12 (2006.01); **C08G 71/04** (2006.01)

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