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(54) Title: BIODEGRADABLE, SEMI-CRYSTALLINE, PHASE SEPARATED, THERMOPLASTIC MULTI BLOCK COPOLYMERS FOR CONTROLLED RELEASE OF BIOLOGICALLY ACTIVE COMPOUNDS

(57) Abstract: This invention is directed to a biodegradable, semi-crystalline, phase separated thermoplastic multi-block copolymer, a process for preparing said multi-block copolymer, a composition for the delivery of at least one biological active compound, and to a method for delivering a biologically active compound to a subject in need thereof. A multi-block copolymer of the invention is characterised in that: a) it comprises at least one hydrolysable pre-polymer (A) segment and at least one hydrolysable pre-polymer (B) segment, b) said multi-block copolymer having a T_g of 37 °C or less and a T_m of 110-250 °C under physiological conditions; c) the segments are linked by a multifunctional chain-extender; d) the segments are randomly distributed over the polymer chain; e) at least part of the pre-polymer (A) segment is derived from a water-soluble polymer.

