

# United States Patent [19]

Churchill et al.

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[54] **BIODEGRADABLE AMPHIPATHIC COPOLYMERS**

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[57] **ABSTRACT**

A pharmaceutically or veterinarily acceptable amphipathic, non-cross linked linear, branched or graft block copolymer, which has a minimum weight average molecular-weight of 1000, in which the hydrophobic component is biodegradable or hydrolytically unstable under normal physiological conditions, and the hydrophilic component may or may not be biodegradable or hydrolytically unstable under such conditions, and which copolymer is self-dispersible in water; together with mixtures of such a copolymer and a drug, which may be water-soluble or water-insoluble, which mixtures are self-dispersible in water; and processes for the manufacture of such copolymers and such mixtures.

**5 Claims, No Drawings**