

[54] REACTIVE SILICONE AND/OR FLUORINE CONTAINING HYDROPHILIC PREPOLYMERS AND POLYMERS THEREOF

[75] Inventor: Karl F. Mueller, New York, N.Y.

[73] Assignee: Ciba-Geigy Corporation, Ardsley, N.Y.

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[58] Field of Search ..... 525/276, 288; 526/245, 526/279

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Primary Examiner—Joseph L. Schofer
Assistant Examiner—N. Sarofim
Attorney, Agent, or Firm—Luther A. R. Hall

[57] ABSTRACT

Vinyl unsaturated copolymers are described which are obtained in a two-step process and which consist of monomeric units A, B, C, D and E, copolymerized in a first step, and in a second step reacted with a reactive vinyl monomer Mv, and in which A is a siloxane or fluorine containing vinyl monomer, 30-70% by weight; B is N,N-dimethylacrylamide or N-vinylpyrrolidone, 30-70% by weight; C is an active hydrogen containing vinyl monomer, 0.5-25% by weight; D are other copolymerizable comonomers, 0-30% by weight, and E is a chain transfer agent, 0-10 mol percent. Mv is a vinyl unsaturated isocyanate.

These vinyl unsaturated polymers are useful, either by themselves or in combination with other copolymerizable vinyl monomers, as heat or UV-curable coatings or glass, plastic, wood, paper, textiles, metal or ceramics, said coatings possessing low surface energies and low refractive indices. They are especially useful as UV-curable hydrophilic coatings and water-swelling biocompatible polymers, especially fully molded highly oxygen-permeable contact lenses.

17 Claims, No Drawings