

Title (en)

AQUEOUS POLYMER DISPERSIONS COMPRISING EFFECT SUBSTANCES, PROCESSES FOR PREPARING THEM AND THEIR USE

Title (de)

EFFEKTSTOFFE ENTHALTENDE WÄSSRIGE POLYMERDISPERSIONEN, VERFAHREN ZU IHRER HERSTELLUNG UND IHRE VERWENDUNG

Title (fr)

DISPERSIONS AQUEUSES A BASE DE POLYMERES COMPORTANT DES SUBSTANCES A EFFET, LEURS PROCEDES DE PREPARATION ET LEUR UTILISATION

Publication

EP 1858936 A1 20071128 (DE)

Application

EP 05715913 A 20050310

Priority

EP 2005002534 W 20050310

Abstract (en)

[origin: WO2006094526A1] Aqueous polymer dispersions which comprise effect substances and have an average dispersed particle diameter of ≤ 1000 nm, the polymer particles comprising a polymer matrix comprising at least one ethylenically unsaturated monomer, at least 0.1% by weight of a polymer from the group (i) of at least one homopolymer of ethylene, propylene, butene-1, butene-2, pentene-1 or hexene-1, having an average molar mass M_w of 100 to 10 000, (ii) of at least one copolymer of at least two of the monomers specified under (i), having an average molar mass of 100 to 10 000, and/or (iii) of polyisobutylene having an average molar mass M_w of at least 100, and at least one effect substance which is soluble in the ethylenically unsaturated monomers from which the polymers are synthesized; process for preparing such dispersions by means of miniemulsion polymerization, a solution of at least one effect substance in at least one ethylenically unsaturated monomer and at least one polymer according to (i), (ii) and/or (iii) being emulsified in the presence of at least one surface-active agent in water to give a miniemulsion having an average droplet size ≤ 500 nm, and the miniemulsion then being subjected to free-radical polymerization; and use of the aqueous polymer dispersions thus obtainable or of the polymer powders obtained from them for the purpose of stabilizing polymers against exposure to UV radiation, oxygen and/or heat, as lubricants for polymers, in cosmetic or pharmaceutical formulations, in paint films, in the production of paper, leather or textiles, in formulations for animal nutrition, and in formulations for agriculture and forestry.

IPC 8 full level

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Citation (search report)

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