

Title (en)

Fabric softening products based on a combination of pentaerythritol compound and bentonite.

Title (de)

Weichspülerprodukte basierend auf einer Kombination aus Pentaerytritol und Bentonit.

Title (fr)

Produits adoucissants pour le linge à base d'une combinaison d'un composé de pentaérythritol et bentonite.

Publication

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Application

EP 92306450 A 19920714

Priority

US 75603091 A 19910906

Abstract (en)

A fabric softening product is a composition or article that is effective for its fabric softening purpose but preferably excludes ecotoxic quaternary ammonium salt, includes, as a fabric softening component, a PEC, which is an ester of pentaerythritol, an ester of an oligomer of pentaerythritol, an ester of a lower alkoxylated pentaerythritol or an ester of a lower alkoxylated pentaerythritol oligomer, with bentonite, which increases its fabric softening effect remarkably. The PEC is preferably a partial higher fatty acid ester of pentaerythritol or a partial higher fatty acid ester or a pentaerythritol oligomer, the bentonite is preferably sodium bentonite or swellable calcium bentonite, the fabric softening composition is a softener or a non-detensive composition, both of which may be in solid (preferably particulate solid) or liquid state or form (preferably in aqueous suspension or gel), and the fabric softening article is an absorbent material with bentonite and PEC deposited on it or absorbed by it. Also within the invention are processes for softening fibrous materials of laundry by contacting them with such compositions and/or articles during washing, rinsing and/or drying operations. <IMAGE>

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Cited by

EP1149893A1; CZ298908B6; EP1149894A1; EP1586626A3; US7928048B2; WO0183663A1; WO2005063958A1; WO03106608A1; WO03104369A1; WO03106609A1; WO0181520A1; JP2016501980A; EP0582478B1; WO0070004A1; WO0181521A3

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