

Title (en)
DETERGENT HAVING IMPROVED PERFORMANCE

Title (de)
REINIGUNGSMITTEL MIT VERBESSERTER LEISTUNGSFÄHIGKEIT

Title (fr)
DÉTERGENT DOTÉE DE PERFORMANCES AMÉLIORÉES

Publication
EP 3599272 B1 20230906 (EN)

Application
EP 18185929 A 20180727

Priority
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Abstract (en)
[origin: EP3599272A1] The present invention is related to the use of polymers, obtainable by radical-induced copolymerization of monomers according to formula I, in which, independently from each other, R¹ and R² is H or an alkyl group with 1 to 4 C-atoms, R³ and R⁴ is H or a methyl group, and n is a number from 1 to 200, with monomers according to formula II, in which, independently from each other, R⁵, R⁶ and R⁷ is H or an alkyl group with 1 to 4 C-atoms with the proviso that at least one of R⁵ and R⁶ is H, and with branching monomers according to formula III, in which R⁸ is H or an alkyl group with 1 to 4 C-atoms, R⁹ is -C(O)-O-R¹¹-, -C(O)-NR¹¹-R¹²-, -O-R¹¹-, an arylene group, a linear or branched alkylene group with 1 to 20 C-atoms, or -(CH₂)₂-CHR¹³-O)_m-, R¹⁰ is -C(S)-S-R¹⁴-, -C(S)-R¹⁵-, -C(S)-NR¹⁶-R¹⁷-, or -C(S)-O-R¹⁸-, R¹¹ is a linear or branched alkylene group with 1 to 20 C-atoms, or -(CH₂)₂-CHR¹³-O)_m-, R¹² is H or a linear or branched alkylene group with 1 to 20 C-atoms, or -(CH₂)₂-CHR¹³-O)_m-, R¹³ is H or a methyl group, R¹⁴ is a linear or branched alkylene group with 1 to 20 C-atoms, or a pyrrolidone group, R¹⁵ is an aryl group or a linear or branched alkylene group with 1 to 20 C-atoms, or a pyrrolidone group, R¹⁶, R¹⁷ and R¹⁸ are, independently from each other, H, an aryl group, a linear or branched alkyl group with 1 to 20 C-atoms, or -(CH₂)₂-CHR¹³-O)_m-H, and m is a number of from 1 to 20, to improve the cleaning performance of detergents.

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