

Title (en)
MULTI-PHASE PRE-PORZIONED CLEANING AGENT

Title (de)
MEHRPHASIGES VORPORTIONIERTES REINIGUNGSMITTEL

Title (fr)
DÉTERGENTS POLYPHASIQUES PRÉPORTIONNÉS

Publication
EP 3102658 B1 20190403 (DE)

Application
EP 15704269 A 20150204

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Abstract (en)
[origin: WO2015118011A1] The invention relates to pre-portioned multi-phase cleaning agents, in particular dishwasher detergents in a water-soluble packaging having at least two compartments, comprising at least one solid, preferably powder phase and at least one liquid phase, characterized in that the liquid phase (or the liquid phases) a) contains at least one alkoxyated component, preferably two, three, four, or more alkoxyated components, according to formula 1, $R1-O-(CH_2-CH(R_2)-O)_w-(CH_2-CH(R_3)-O)_x-(CH_2-CH(R_4)-O)_y-(CH_2-CH(R_5)-O)_z-R_6$, R1 being selected from -H, -CH₃, straight-chain or branched, saturated or mono- or polyunsaturated, C₂-24 alkyl group or alkenyl group; R₂, R₃, R₄, and R₅ being selected independently of each other from -H, -CH₃, -CH₂CH₃, -CH₂CH₂CH₃, CH(CH₃)₂, preferably -H or -CH₃; R₆ being selected from -H, -CH₃, -CH₂CH₃, -CH₂CH₂CH₃, -CH(CH₃)₂, -CH₂-CH₂-CH₂CH₃, -CH₂CH(CH₃)₂, -C(CH₃)₃, C₅-24 alkyl or alkenyl, and -CH₂CH(OH)R₇, R₇ being a straight-chain or branched, saturated or mono- or polyunsaturated C₆-26 alkyl group or alkenyl group; and w, x, y, and z being able to assume values from 1 to 120 independently of each other and x, y, and/or z being able to equal 0, b) is substantially free of organic components that have an average molecular weight of less than 175 g/mol, preferably of less than 150 g/mol; and c) is substantially free of water. The invention further relates to the use of said cleaning agents.

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Citation (opposition)
Opponent : THE PROCTER & GAMBLE COMPANY
• WO 2006086109 A1 20060817 - PROCTER & GAMBLE [US], et al
• US 2010216683 A1 20100826 - KESSLER ARND [DE], et al
• ANONYMUS: "Lutensol ®TO types. Technical Information", 1 November 2005 (2005-11-01), pages 1 - 16, XP055678615
• ANONYMUS: "Plurafac ® LF types Low-foaming nonionic surfactants. Technical Information", 1 April 2008 (2008-04-01), pages 1 - 16, XP055678612

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