

Title (en)
DETERGENT

Title (de)
REINIGUNGSMITTEL

Title (fr)
DÉTERGENTS

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Application
EP 07847827 A 20071205

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• EP 2007063331 W 20071205
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Abstract (en)

[origin: WO2008095563A1] The invention relates to a phosphate-free dishwasher detergent which contains a builder, bleaching agents, and also a) a copolymer comprising i) monomers from the group of mono- or polyunsaturated carboxylic acids; ii) monomers of general formula $R^{¹}C^{²}(R^{³})X-R^{⁴}$, wherein $R^{¹}$ to $R^{³}$ independently represent -H, -CH₃ or -C₂H₅, X represents an optional spacer group that is selected from -CH₂-, -C(O)O- and -C(O)-NH-, and $R^{⁴}$ represents a straight-chain or branched saturated alkyl group with 2 to 22 carbon atoms or an unsaturated, preferably aromatic group with 6 to 22 carbon atoms; iii) optionally further monomers, b) a nonionic surfactant of general formula $R^{¹}CH(OH)CH_2O(AO)_w(A'O)_x(A''O)_y(A'''O)_z$, wherein $R^{¹}$ represents a straight-chain or branched, saturated or mono- or polyunsaturated C₆₋₂₄ alkyl or -alkenyl group; $R^{²}$ represents a linear or branched hydrocarbon group with 2 to 26 carbon atoms; A, A', A'' and A''' independently represent a group selected from -CH₂CH₂-, -CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂CH₂CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂CH₂CH₂CH₂CH₂CH₂-, -CH₂CH₂CH₂CH₂CH₂CH₂CH₂CH₂CH₂CH₂-, w, x, y and z represent values between 0.5 and 120, wherein x, y and/or z can be 0. The detergent according to the invention has good cleaning and rinsing results which are comparable to those of phosphate-containing dishwasher detergents or even outdo them.

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Cited by
DE102014208509A1; US11046868B2; US11028344B2

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