

Title (en)

Use of quaternary polysiloxanes in detergent compositions

Title (de)

Verwendung von quaternären Polysiloxanen in Waschmittelformulierungen

Title (fr)

Utilisation de polysiloxanes quaternaires dans des compositions de détergents

Publication

EP 1199350 A1 20020424 (DE)

Application

EP 01123706 A 20011004

Priority

DE 10051258 A 20001016

Abstract (en)

Washing agents having a softening effect contain at least one quaternary polysiloxane compound. Washing agents (I) having a softening effect contain at least one quaternary polysiloxane compound of formula (1), (2a) or (2b). M = divalent hydrocarbon having at least 4C atoms and a hydroxyl group, optionally containing an O atom whereby the N atom of Z is bonded to M via the C-OH group of the neighboring carbon atom in M; Z = -N<+><R<1>>(R<3>)-R<2>, -N<+><R<4>>(R<5>)-(CH₂)_x-R<6>-C(=O)-R<7>, formula (3); R<1>-R<3> = 1-22C alkyl or 2-22C alkenyl optionally having hydroxyl groups whereby at least one of R<1>-R<3> comprises at least 10C; R<4>,R<5>,R<7>, R<9>,R<10> = 1-22C alkyl or 2-22C alkenyl optionally containing hydroxyl groups; R<6> = -O or -NR<8>' R<8> = 1-4C alkyl, hydroxyalkyl or H; x = 2-4; n = 0-200; A = inorganic or organic anion of a physiologically compatible acid HA; Z<1> = H, OH, alkyl or alkoxy or an at least 4C hydrocarbon optionally having hydroxyl groups and containing -O- or is of formula -M-N<+><R<11>>(R<12>)-Y-N(R<13>)(R<14>).A<-> or -M-N<+><R<11>>(R<12>)-R<15> .A<->; Z<2> = -SiO(CH₃)(CH₃)-(SiO(CH₃)(CH₃))_n-Si(CH₃)(CH₃)-Z<1>; Y = a divalent at least 2C hydrocarbon having one hydroxyl group and optionally containing oxygen or nitrogen linkages; R<11>-R<14> = 1-4C alkyl or benzyl or R<11> and R<13> or R<12> and R<14>=1-4C alkyl or benzyl or R<11> and R<13> or R<12> and R<14> form a bridged alkenyl group; R<15> = 1-20C alkyl; m ≥ 1.

Abstract (de)

Gegenstand der Erfindung ist die Verwendung von quaternären Polysiloxanen der allgemeinen Formel (I) <IMAGE> und/oder cyclischen quaternären Polysiloxanen der allgemeinen Formel (IIa) <IMAGE> und/oder linearen quaternären Polysiloxanen der allgemeinen Formel (IIb) <IMAGE> in Waschmittelformulierungen.

IPC 1-7

C11D 1/62

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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