

Title (en)

Detergent comprising dendrimeric ligands and their metallo-complexes as bleach activators

Title (de)

Wasch- und Reinigungsmittel enthaltend bleichaktive Dendrimer-Liganden und deren Metallkomplexe

Title (fr)

Composition détergente comprenant des ligands dendrimères et leurs complexes de métaux comme activateurs de blanchiment

Publication

**EP 1148118 A1 20011024 (DE)**

Application

**EP 01109629 A 20010418**

Priority

DE 10019877 A 20000420

Abstract (en)

Cleaning agents and detergents containing a peroxide compound also contain a polyalkyleneimine-type dendrimer or one of its transition metal complexes. Cleaning agents and detergents containing a peroxide compound also contain a polyalkyleneimine-type dendrimer of formula R<1>2NXNR<1>2 (I) or one of its transition metal complexes. R<1> = R<2><R<3>N-(CH<sub>2</sub>)<sub>n</sub>-; R<2> and R<3> = R<4><R<5>N-(CH<sub>2</sub>)<sub>n</sub> - or together form a group A or R<2> is H and R<3> is a group of formula (II); R<4> and R<5> = R<6><R<7>N-(CH<sub>2</sub>)<sub>n</sub> - or together form a group A or R<4> is H and R<5> is a group of formula (II); R<6> and R<7> = R<8><R<9>N-(CH<sub>2</sub>)<sub>n</sub> - or together form a group A or R<6> is H and R<7> is a group of formula (II); R<8> and R<9> together form a group A (see below) or R<8> = H and R<9> is a group of formula (II); n = 0 or 3; A = a group of formula (III); a = 1-4; R<10> = H, 1-30C alkyl, cycloalkyl or aryl, 1-4C alkoxy, optionally substituted amino or ammonium, halogen, sulfo, carboxyl, -(CH<sub>2</sub>)<sub>r</sub>COOH, -(CH<sub>2</sub>)<sub>r</sub>SO<sub>3</sub>H, -(CH<sub>2</sub>)<sub>r</sub>PO<sub>3</sub>H<sub>2</sub> or -(CH<sub>2</sub>)<sub>r</sub>OH, the acid groups optionally being in salt-form; r = 0-4; X = -(CH<sub>2</sub>)<sub>2</sub>-20-, -(CH<sub>2</sub>)<sub>3</sub>-NR<11>-(CH<sub>2</sub>)<sub>3</sub>-; -(CH<sub>2</sub>)<sub>2</sub>-NR<11>-(CH<sub>2</sub>)<sub>2</sub>-; 2-20C alkylene or -(CH<sub>2</sub>)<sub>l</sub>-(O-(CH<sub>2</sub>)<sub>k</sub>m-OCH<sub>2</sub>)<sub>l</sub>)-; k and l = 2-6; m = 1-40; and R<11> = 1-20C alkyl, 2-20C dialkylamino-2-10C alkyl, 1-10C alkoxy-2-10C alkyl, 2-20C hydroxyalkyl, 3-12C cycloalkyl, 4-20C cycloalkyl-alkyl, 2-20C alkenyl, 4-30C dialkylamino-alkenyl, 3-30C alkoxyalkenyl, 3-20C hydroxyalkenyl, 5-20C cycloalkyl-alkenyl, aryl or 7-20C aralkyl, optionally substituted by 1-8C alkyl or alkoxy, 2-8C diakylamino, OH, 3-8C cycloalkyl, or 4-12C cycloalkyl-alkyl or 2 of these substituents together indicate an optionally N- or O-interrupted alkylene chain such as ethylene-, propylene- or butylene-oxide.

Abstract (de)

Beansprucht werden Wasch- und Reinigungsmittel, die neben einer Peroxidverbindung eine Verbindung der Formel (R<1>R<1>)N - X - N(R<1>R<1>) oder deren Metallkomplexe enthalten, wobei X und R<1> die in der Beschreibung aufgeführten Bedeutungen haben.

IPC 1-7

**C11D 3/39; D06L 3/02**

IPC 8 full level

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CPC (source: EP US)

**C11D 3/168** (2013.01 - EP US); **C11D 3/3932** (2013.01 - EP US)

Citation (search report)

- [DA] DE 19809713 A1 19990701 - HENKEL KGAA [DE]
- [A] DE 19611977 A1 19971002 - BASF AG [DE]
- [DA] MOORS R ET AL: "DENDRIMERE POLYAMINE. DENDRIMERIC POLYAMINES", CHEMISCHE BERICHTE, DE, VERLAG CHEMIE GMBH. WEINHEIM, VOL. 126, PAGE(S) 2133-2135, ISSN: 0009-2940, XP002037381

Cited by

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