

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 B1 20031203 (DE)

Application

EP 01109629 A 20010418

Priority

DE 10019877 A 20000420

Abstract (en)

[origin: EP1148118A1] 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. $R<1> = R<2><R<3>N-(CH_2)_n$ -; $R<2>$ and $R<3> = R<4><R<5>N-(CH_2)_n$ - or together form a group A or $R<2>$ is H and $R<3>$ is a group of formula (II); $R<4>$ and $R<5> = R<6><R<7>N-(CH_2)_n$ - or together form a group A or $R<4>$ is H and $R<5>$ is a group of formula (II); $R<6>$ and $R<7> = R<8><R<9>N-(CH_2)_n$ - 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); $n =$ 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, $-(CH_2)_r-COOH$, $-(CH_2)_r-SO_3H$, $-(CH_2)_r-PO_3H_2$ or $-(CH_2)_r-OH$, the acid groups optionally being in salt-form; $r = 0-4$; $X = -(CH_2)_2-20-$, $-(CH_2)_3-NR<11>-(CH_2)_3-$, $-(CH_2)_2-NR<11>-(CH_2)_2-$, 2-20C alkylene or $-(CH_2)_l-(O-(CH_2)_k)_m-OCH_2)_l-$; 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 dialkylamino, 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.

IPC 1-7

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

IPC 8 full level

C11D 3/395 (2006.01); **C08G 73/02** (2006.01); **C11D 3/16** (2006.01); **C11D 3/30** (2006.01); **C11D 3/36** (2006.01); **C11D 3/39** (2006.01); **D06L 3/02** (2006.01)

CPC (source: EP US)

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

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