

Title (en)

Bleaching system containing Bis-and-Tris-(mu-oxo)-di-manganese complex salts

Title (de)

Bleichmittelsysteme enthaltend Bis- und Tris-(mu-oxo)-di-Mangan-Komplexsalze

Title (fr)

Système de blanchiment contenant des sels de Bis-et-tris-(mu-oxo)-di-manganèse complexé

Publication

EP 0783035 B1 20030924 (DE)

Application

EP 96120743 A 19961223

Priority

DE 19600159 A 19960104

Abstract (en)

[origin: EP0783035A2] Bleach systems contain bis- and tris-(mu -oxo)-di-manganese complex salts of formula (I) $\text{ÄLMn}(\mu\text{-O})_a(\mu\text{-OAc})_b\text{MnL}\ddot{\text{U}}$ (x+) Ay; in which Ac = 2-8C acyl; a = 1-3; b = 0 if a = 2 or 3 or b = 2 if a = 1; x = 2 or 3; A = a mono- or di-valent anion; y = the equivalent amount of anion A to balance the positive charges; L = a ligand of formula R-N(Q)2 (II) or (Q)2N-(C(R<1>)2)g-N(Q)2 (III); Q = a group of formula (i); R = 1-12C alkyl, 5-10C cycloalkyl, phenyl, NH2, NHR<2>, N(R<2>)2, OH, OR<2> or COOH; R<1> = H, 1-12C alkyl, 5-10C cycloalkyl, NH2, NHR<2>, N(R<2>)2, OH, OR<2>, COOH, COOR<2>, Cl, Br, F or CN; R<2> = 1-12C alkyl or 5-10C cycloalkyl; g = 2 or 3; m, n = 0-4. Also claimed are washing agents and cleaning agents containing this bleach system.

IPC 1-7

C11D 3/39

IPC 8 full level

D06L 3/02 (2006.01); **C11D 3/39** (2006.01); **C11D 3/395** (2006.01)

CPC (source: EP US)

C11D 3/3932 (2013.01 - EP US)

Cited by

EP0909809A3; GB2386616A; EP3524347A1; WO2013060708A1; WO2013060706A1; WO2017186480A1; WO2009141258A1; US10214606B2; WO2012000846A1; WO2014154508A1; US9790452B2

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI NL

DOCDB simple family (publication)

EP 0783035 A2 19970709; EP 0783035 A3 19980225; EP 0783035 B1 20030924; AT E250660 T1 20031015; CA 2194342 A1 19970705; DE 19600159 A1 19970710; DE 59610733 D1 20031030; ES 2207663 T3 20040601; JP H09194886 A 19970729; US 5942152 A 19990824

DOCDB simple family (application)

EP 96120743 A 19961223; AT 96120743 T 19961223; CA 2194342 A 19970103; DE 19600159 A 19960104; DE 59610733 T 19961223; ES 96120743 T 19961223; JP 35098196 A 19961227; US 77535497 A 19970103