Title (en)
HARD-SURFACE CLEANING COMPOSITIONS

Title (de)
REINIGUNGSZUSAMMENSETZUNGEN FÜR HARTE OBERFLÄCHEN

Title (fr)
COMPOSITIONS DE NETTOYAGE DE SURFACES DURES

Publication
EP 0971997 B1 20030723 (EN)

Application
EP 98912446 A 19980224

Priority
• EP 9801273 W 19980224
• GB 9704989 A 19970311

Abstract (en)
[origin: WO9840452A1] The invention provides a hard surface cleaning composition of pH 3-11 comprising: a) 1-30 % nonionic surfactant, b) 0.005-5 % of a water soluble, anionic polymer having an average molecular weight of less than 1000000, said polymer being free of quaternary nitrogen groups, wherein, the ratio of polymer: nonionic is 0.1: 1 or less, and, c) 0.005-5 % of a cationic surfactant. It is believed that in the presence of the cationic surfactant, negatively charged (i.e. carboxylic dissociated) polymer can interact with the cationic surfactant and the nonionic surfactant to form a three-component complex which deposit the nonionic surfactant upon the soil and/or surface being cleaned. While the mechanism is not entirely clear, this may possibly be due to the interaction of the charged polymer with mixed miscelles of cationic and nonionic surfactant.

IPC 1-7
C11D 1/835; C11D 3/37

IPC 8 full level
C11D 1/835 (2006.01); **C11D 3/37** (2006.01); **C11D 3/48** (2006.01); C11D 1/62 (2006.01); C11D 1/72 (2006.01)

CPC (source: EP KR)
C11D 1/835 (2013.01 - EP KR); **C11D 3/3765** (2013.01 - EP); **C11D 3/48** (2013.01 - EP); C11D 1/62 (2013.01 - EP); C11D 1/72 (2013.01 - EP)

Citation (examination)
WO 8912673 A1 19891228 - VAX APPLIANCES LTD [GB]

Cited by
WO2019048474A1; US10555889B2; US11576845B2; US11634666B2; WO2015000970A1; WO2015000971A1; WO2015000969A2; US10323215B2; US10344249B2; US10647945B2; US10655088B2

Designated contracting state (EPC)
BE DE ES FR GB IT

DOCDB simple family (publication)
WO 9840452 A1 19980917; AU 6728098 A 19980929; AU 734919 B2 20010628; BR 9808003 A 20000308; CA 2280877 A1 19980917; CN 1250470 A 20000412; DE 69816603 D1 20030828; DE 69816603 T2 20040609; EP 0971997 A1 20000119; EP 0971997 B1 20030723; ES 2202825 T3 20040401; GB 9704989 D0 19970430; HU P0001503 A2 20000928; HU P0001503 A3 20030228; ID 22433 A 19991014; IN 190010 B 20030531; JP 2001514693 A 20010911; KR 20000076119 A 20001226; MY 120141 A 20050930; PL 187303 B1 20040630; PL 335609 A1 20000508; TR 199902201 T2 20000522; ZA 981574 B 19990825

DOCDB simple family (application)
EP 9801273 W 19980224; AU 6728098 A 19980224; BR 9808003 A 19980224; CA 2280877 A 19980224; CN 98803209 A 19980224; DE 69816603 T 19980224; EP 98912446 A 19980224; ES 98912446 T 19980224; GB 9704989 A 19970311; HU P0001503 A 19980224; ID 991001 A 19980224; IN 101BO1998 A 19980226; JP 53918698 A 19980224; KR 19997008208 A 19990910; MY PI9801010 A 19980309; PL 33560998 A 19980224; TR 9902201 T 19980224; ZA 981574 A 19980225