

Title (en)
Surfactant systems

Title (de)
Tensidsysteme

Title (fr)
Systèmes tensio-actifs

Publication
EP 2036973 A1 20090318 (DE)

Application
EP 08015155 A 20080827

Priority
• EP 07017536 A 20070907
• EP 08015155 A 20080827

Abstract (en)
Use of a surfactant (Q) comprising nitrogen containing compound (I) or alkane oxy compound (IV), in combination with an ethoxylated fatty alcohol compound (V), for improving the washability of the detergents at = 30[deg] C, preferably 20[deg] C, is claimed. Use of a surfactant (Q) comprising nitrogen containing compound (I) of formula ((R 1>CO-N(R 2>)-(A)-N +>(R 3>)(R 4>)-R 5>)(X ->)) (II) or ((R 6>-N(CH 2-CH 2-O) nH)-R 7>) (III) or alkane oxy compound of formula (R 7a-(CH 2-CH 2-O) x(CH 2-CHCH 3-O) yH) (IV), in combination with an ethoxylated fatty alcohol compound of formula (R 8>-(CH 2-CH 2-O) r-H) (V), for improving the washability of the detergents at = 30[deg] C, preferably 20[deg] C, is claimed. R 1>optionally saturated, ethoxylated 16-22C-hydroxyacyl residue with 1-50 ethylene oxide units; A : 1-6C-alkyl; R 2>-R 4>1-4C-alkyl or H; R 5>an alkyl- or benzyl- residue; X : halo, alkyl sulfate or alkyl phosphate; R 6>optionally saturated 8-24C-alkyl; R 7>(CH 2CH 2-O) mH or optionally saturated 8-24C-alkyl; R 7a, R 8>optionally saturated 6-22C-alkyl; and n, m, x, y, r : 1-10. Independent claims are included for: (1) a surfactant mixture comprising (Q) and (V), where the weight ratio of (Q) and (V) is 4:1-1:4, preferably 1:1; and (2) a detergent comprising 0.1-25 wt.% of the surfactant mixture.

Abstract (de)
Die vorliegende Anmeldung beschreibt Tensidsysteme aus quaternierten kationischen Tensiden, ethoxylierten Aminen und/oder alkoxylierten Fettalkoholen jeweils in Kombination mit ethoxylierten Fettalkoholen und deren Verwendung als Waschkraftverstärker für Waschmittel, vorzugsweise zur Verbesserung der Kaltwascheigenschaften der Waschmittel.

IPC 8 full level
C11D 1/825 (2006.01); **C11D 1/42** (2006.01); **C11D 1/44** (2006.01); **C11D 1/62** (2006.01); **C11D 1/72** (2006.01); **C11D 1/722** (2006.01); **C11D 1/835** (2006.01)

CPC (source: EP)
C11D 1/825 (2013.01); **C11D 1/8255** (2013.01); **C11D 1/835** (2013.01); **C11D 1/8355** (2013.01); **C11D 1/42** (2013.01); **C11D 1/44** (2013.01); **C11D 1/62** (2013.01); **C11D 1/72** (2013.01); **C11D 1/722** (2013.01)

Citation (applicant)
• EP 0992488 A2 20000412 - HENKEL KGAA [DE]
• EP 1642887 A1 20060405 - COGNIS IP MAN GMBH [DE]
• DE 3603579 A1 19870813 - HENKEL KGAA [DE]
• WO 9527768 A1 19951019 - HENKEL KGAA [DE], et al
• EP 1767554 A1 20070328 - COGNIS IP MAN GMBH [DE]

Citation (search report)
• [DX] EP 1642887 A1 20060405 - COGNIS IP MAN GMBH [DE]
• [DX] EP 0992488 A2 20000412 - HENKEL KGAA [DE]
• [X] GB 2174101 A 19861029 - COLGATE PALMOLIVE CO
• [X] DE 2832679 A1 19790215 - HENKEL KGAA
• [X] US 6146427 A 20001114 - CRUTCHER TERRY [US]
• [X] US 6376446 B1 20020423 - SMADI RAEDA [US], et al
• [X] DE 3531128 C1 19860515 - HOFFMANN STAERKEFABRIKEN AG
• [X] DE 4125025 A1 19930204 - HENKEL KGAA [DE]
• [X] WO 2005001011 A1 20050106 - ECOLAB INC [US], et al
• [X] US 6329333 B1 20011211 - MERZ THOMAS [DE], et al
• [X] WO 9724422 A1 19970710 - HENKEL ECOLAB GMBH & CO OHG [DE]
• [X] DE 19535082 A1 19970327 - HENKEL ECOLAB GMBH & CO OHG [DE]
• [X] US 5364552 A 19941115 - MERZ THOMAS [DE], et al
• [X] DE 4332849 A1 19950330 - HENKEL KGAA [DE]

Cited by
US10947480B2; US11572529B2

Designated contracting state (EPC)
DE ES FR GB IT

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
EP 2036973 A1 20090318

DOCDB simple family (application)
EP 08015155 A 20080827