

Title (en)
Solid bleach activator compositions

Title (de)
Feste Bleichaktivatorzusammensetzungen

Title (fr)
Compositions d'activateurs de blanchiment solides

Publication
EP 0693549 A1 19960124 (EN)

Application
EP 94305300 A 19940719

Priority
EP 94305300 A 19940719

Abstract (en)
Solid bleach activator compositions are disclosed which comprise a particulate bleach activator material, wherein said bleach activator is co-agglomerated with a secondary (2,3) alkyl sulfate and may be further coated with such a secondary (2,3) alkyl sulfate surfactant. The present invention also encompasses a process for manufacturing said particulate bleach activator materials.

IPC 1-7
C11D 3/39; **C11D 17/00**

IPC 8 full level
C11D 3/39 (2006.01); **C11D 17/00** (2006.01)

CPC (source: EP)
C11D 3/3907 (2013.01); **C11D 3/3935** (2013.01); **C11D 17/0039** (2013.01)

Citation (applicant)

- GB 1507312 A 19780412 - UNILEVER LTD
- GB 1381121 A 19750122 - UNILEVER LTD
- EP 0375241 A2 19900627 - PROCTER & GAMBLE [US]
- US 2900346 A 19590818 - FOWKES FREDERICK M, et al
- US 3468805 A 19690923 - GRIFO RICHARD A, et al
- US 3480556 A 19691125 - WITT WILLIAM J DE, et al
- US 3681424 A 19720801 - BLOCH HERMAN S, et al
- US 4052342 A 19771004 - FERNLEY GEORGE W, et al
- US 4079020 A 19780314 - MILLS ANTHONY KINNAIRD, et al
- US 4235752 A 19801125 - HAMPSON JEFFREY D [GB], et al
- US 4529541 A 19850716 - WILMS ELMAR [DE], et al
- US 4614612 A 19860930 - REILLY JOHN T [GB], et al
- US 4880569 A 19891114 - LENG FRANCIS J [GB], et al
- US 5075041 A 19911224 - LUTZ EUGENE F [US]
- GB 818367 A 19590812 - BATAAFSCHE PETROLEUM
- GB 1585030 A 19810218 - SHELL INT RESEARCH
- GB 2179054 A 19870225 - UNILEVER PLC
- GB 2155031 A 19850918 - UNILEVER PLC
- US 4915854 A 19900410 - MAO MARK H [US], et al
- US 4412934 A 19831101 - CHUNG STANLEY Y [US], et al
- GB 1586789 A 19810325 - HOECHST AG
- GB 836988 A 19600609 - UNILEVER LTD
- GB 864798 A 19610406 - UNILEVER LTD
- GB 1147871 A 19690410 - UNILEVER LTD [GB]
- GB 2143231 A 19850206 - PROCTER & GAMBLE
- GB 855735 A 19601207 - UNILEVER LTD
- GB 1246338 A 19710915 - HENKEL & CIE GMBH [DE]
- GB 907356 A 19621003 - KONINK IND MIJ VOORHEEN NOURY
- US 6462393 A 19930520
- US 6462793 A 19930520
- US 6456293 A 19930520
- US 6456493 A 19930520
- US 6462493 A 19930520
- US 6456393 A 19930520
- US 4634551 A 19870106 - BURNS MICHAEL E [US], et al
- EP 0439316 A2 19910731 - UNILEVER PLC [GB], et al
- US 4064076 A 19771220 - KLISCH STEPHEN CAJETAN, et al
- US 3234258 A 19660208 - LOUIS MORRIS ROBERT
- US 4483781 A 19841120 - HARTMAN FREDERICK A [US]
- EP 0133354 A1 19850220 - INTEROX CHEMICALS LTD [GB]
- US 4033718 A 19770705 - HOLCOMBE THOMAS CHARLES, et al
- GB 1243784 A 19710825 - NOVO TERAPEUTISK LABOR AS [DK]
- EP 0130756 A1 19850109 - GENENTECH INC [US]
- EP 0251446 A2 19880107 - GENENTECH INC [US]
- GB 1296839 A 19721122
- US 4435307 A 19840306 - BARBESGAARD PEDER O [DK], et al
- GB 2075028 A 19811111 - NOVO INDUSTRI AS
- GB 2095275 A 19820929 - KAO CORP
- DE 2247832 A1 19730405 - RIKAGAKU KENKYUSHO
- GB 1372034 A 19741030 - UNILEVER LTD
- JP S5320487 A 19780224 - AMANO PHARMA CO LTD

- EP 0341947 A1 19891115 - UNILEVER PLC [GB], et al
- WO 8909813 A1 19891019 - NOVO INDUSTRI AS [DK]
- US 3553139 A 19710105 - MCCARTY CHARLES BRUCE [US]
- US 4101457 A 19780718 - PLACE GEOFFREY, et al
- US 4507219 A 19850326 - HUGHES LARRY J [US]
- US 4261868 A 19810414 - HORA JIRI, et al
- US 3600319 A 19710817 - GEDGE BURTON H, et al
- EP 0199405 A2 19861029 - PROCTER & GAMBLE [US]
- US 3519570 A 19700707 - MCCARTY CHARLES BRUCE [US]
- US 4537706 A 19850827 - SEVERSON JR ROLAND G [US]
- US 4664839 A 19870512 - RIECK HANS-PETER [DE]
- DE 3417649 A1 19851114 - HOECHST AG [DE]
- DE 3742043 A1 19890622 - HOECHST AG [DE]
- DE 2321001 A1 19731115 - PROCTER & GAMBLE
- US 3985669 A 19761012 - KRUMMEL H KARL, et al
- US 3128287 A 19640407 - BERG RUDOLPH G
- US 3635830 A 19720118 - LAMBERTI VINCENT, et al
- US 4663071 A 19870505 - BUSH RODNEY D [US], et al
- US 3923679 A 19751202 - RAPKO JOHN N
- US 3835163 A 19740910 - RAPKO J
- US 4158635 A 19790619 - CRUTCHFIELD MARVIN M, et al
- US 4120874 A 19781017 - CRUTCHFIELD MARVIN M, et al
- US 4102903 A 19780725 - CRUTCHFIELD MARVIN M, et al
- US 4566984 A 19860128 - BUSH RODNEY D [US]
- US 4144226 A 19790313 - CRUTCHFIELD MARVIN M, et al
- US 3308067 A 19670307 - DIEHL FRANCIS LOUVAINE [US]
- US 3723322 A 19730327 - DIEHL F
- US 3159581 A 19641201 - DIEHL FRANCIS L
- US 3213030 A 19651019 - DIEHL FRANCIS L
- US 3422021 A 19690114 - ROY CLARENCE HENRY [US]
- US 3400148 A 19680903 - QUIMBY OSCAR T
- US 3422137 A 19690114 - QUIMBY OSCAR T
- US 4721580 A 19880126 - GOSSELINK EUGENE P [US]
- US 4000093 A 19761228 - NICOL CHARLES HENRY, et al
- EP 0219048 A2 19870422 - BASF AG [DE]
- US 3959230 A 19760525 - HAYS HUGH ROBERT
- US 3893929 A 19750708 - BASADUR MARINO S
- US 4702857 A 19871027 - GOSSELINK EUGENE P [US]
- US 4968451 A 19901106 - SCHEIBEL JEFFREY J [US], et al
- US 4711730 A 19871208 - GOSSELINK EUGENE P [US], et al
- US 4877896 A 19891031 - MALDONADO RENE [US], et al
- US 3812044 A 19740521 - CONNOR D, et al
- US 4704233 A 19871103 - HARTMAN FREDERICK A [US], et al
- US 4597898 A 19860701 - VANDER MEER JAMES M [US]
- EP 0111965 A2 19840627 - PROCTER & GAMBLE [US]
- EP 0111984 A2 19840627 - PROCTER & GAMBLE [US]
- EP 0112592 A2 19840704 - PROCTER & GAMBLE [US]
- US 4548744 A 19851022 - CONNOR DANIEL S [US]
- EP 0066915 A2 19821215 - PROCTER & GAMBLE [US], et al
- US 4790856 A 19881213 - WIXON HAROLD E [US]
- US 3646015 A 19720229 - HAMILTON LEWIS R
- US 4489455 A 19841225 - SPENDEL WOLFGANG U [US]
- US 4489574 A 19841225 - SPENDEL WOLFGANG U [US]
- US 2954347 A 19600927 - ST JOHN WAYNE L, et al
- US 4265779 A 19810505 - GANDOLFO DANIEL, et al
- US 3455839 A 19690715 - RAUNER LAWRENCE A
- DE 2124526 A1 19711202
- US 3933672 A 19760120 - BARLOTTA GUISEPPE, et al
- US 4652392 A 19870324 - BAGINSKI RICHARD M [US], et al
- US 4978471 A 19901218 - STARCH MICHAEL S [US]
- US 4983316 A 19910108 - STARCH MICHAEL S [US]
- US 4639489 A 19870127 - AIZAWA KOICHI [JP], et al
- US 4749740 A 19880607 - AIZAWA KOICHI [JP], et al
- US 4798679 A 19890117 - CASTRO ARTEMIO [US], et al
- US 4075118 A 19780221 - GAULT TERRELL WILSON, et al
- EP 0150872 A1 19850807 - PROCTER & GAMBLE [US], et al
- US 4062647 A 19771213 - STORM THOMAS D, et al
- US 4375416 A 19830301 - CRISP PETER N [GB], et al
- US 4291071 A 19810922 - HARRIS RICHARD G, et al
- US 2703798 A 19550308 - SCHWARTZ ANTHONY M
- WO 9206154 A1 19920416 - PROCTER & GAMBLE [US]
- WO 9206984 A1 19920430 - PROCTER & GAMBLE [US]
- K.: "Principles of Solution and solubility", 1978, MARCEL DEKKER, INC., pages: 160 - 161
- M. ZAHRADNIK: "The Production and Application of Fluorescent Brightening Agents", 1982, JOHN WILEY & SONS
- "Kirk Othmer Encyclopedia of Chemical Technology", vol. 7, 1979, JOHN WILEY & SONS, INC., pages: 430 - 447

Citation (search report)

- [A] US 4087369 A 19780502 - WEVERS JEAN
- [A] EP 0374867 A1 19900627 - HOECHST AG [DE]
- [A] EP 0051987 A1 19820519 - PROCTER & GAMBLE [US], et al
- [A] EP 0156977 A2 19851009 - MIRA LANZA SPA [IT]
- [A] SOVIET PATENTS ABSTRACTS Week 9043, Derwent World Patents Index; AN 90-326473

- [A] SOVIET PATENTS ABSTRACTS Week 8313, Derwent World Patents Index; AN 83-31717

Cited by

US5919747A; US5955418A; CN112996569A; WO2005087908A1; WO2016111884A2; US10570352B2; WO2015191434A2; US10421930B2; WO2020089812A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)

EP 0693549 A1 19960124; WO 9602601 A1 19960201

DOCDB simple family (application)

EP 94305300 A 19940719; US 9508723 W 19950712