

Title (en)
Hard surface cleaning compositions

Title (de)
Reinigungsmittel für harte Oberflächen

Title (fr)
Compositions pour le nettoyage de surface dures

Publication
EP 1312665 A1 20030521 (EN)

Application
EP 01300059 A 20010104

Priority
EP 01300059 A 20010104

Abstract (en)
The invention concerns cationic nitriles and their use as bleach activator compounds in hard surface cleaning compositions comprising a peroxygen bleach compound. The cationic nitriles have the general formula: <CHEM> wherein R1 is an alkyl group of 3-10 carbon atoms, a phenyl-substituted alkyl group with a total of 7-12 carbon atoms, or a (alkyl-substituted) phenyl group of 6-10 carbon atoms, R2 and R3 are independently methyl or ethyl groups and X<-> is a counterion. The hard surface cleaning compositions are preferably aqueous liquids, comprising hydrogen peroxide as the peroxygen bleach compound.

IPC 1-7
C11D 3/39; C07C 255/25

IPC 8 full level
C11D 3/39 (2006.01); **C11D 17/04** (2006.01)

CPC (source: EP)
C11D 3/3925 (2013.01); **C11D 3/3947** (2013.01); **C11D 17/049** (2013.01)

Citation (search report)

- [DXYA] EP 0303520 A2 19890215 - KAO CORP [JP]
- [XAY] DE 19740669 A1 19990318 - CLARIANT GMBH [DE]
- [DYA] WO 9823533 A1 19980604 - CLOROX CO [US]
- [X] LUTEN D.B. JR.: "The preparation of aminonitriles and their quaternary ammonium derivatives", J. ORG. CHEM., vol. 3, 1938, pages 592 - 959, XP001002648
- [X] PATON J.M. ET AL.: "Applications of Electrophilic Molecular Rearrangement to the Synthesis of NN-Dimethylphenylalanine and Benzo[b]quinolizidine", J. CHEM. SOC. (C), 1969, pages 2130 - 2131, XP002168827
- [X] KOCHARYAN S.T. ET AL.: "Effect of o- and p-Methyl Substituents in the benzyl group on Competition between Stevens and Sommelet Rearrangements", J. GEN. CHEM. USSR, vol. 60, no. 11, 1990, pages 2277 - 2282, XP002168841
- [X] SCHIEMENZ G.P.: "Ionen- VIII Das Tetraphenylborat-Ion als Kernresonanzverschiebungsreagens bei Quartären Ammonium-Kationen", TETRAHEDRON, vol. 29, 1973, pages 741 - 745, XP002168855
- [X] KOCHARYAN S.T. ET AL.: "Investigations in the region of amines and ammonium compounds. CLXIII. Stevens and Sommelet rearrangements of ammonium salts containing a cyanomethyl group", J. ORG. CHEM. USSR, vol. 18, 1982, pages 1627 - 1630, XP001002641
- [XY] PATENT ABSTRACTS OF JAPAN vol. 013, no. 501 (C - 652) 10 November 1989 (1989-11-10)
- [X] KOCHARYAN S.T. ET AL.: "Investigations in the field of amines and ammonium compounds. CLXXX. The Stevens and Sommelet rearrangement of ammonium salts containing a 1-naphthylmethyl group.", J. ORG. CHEM. USSR, vol. 21, no. 1, 1985, pages 50 - 53, XP002168835

Cited by
WO2006092246A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1312665 A1 20030521

DOCDB simple family (application)
EP 01300059 A 20010104