

Title (en)  
Liquid hard-surface cleaning compositions

Title (de)  
Flüssige Reinigungsmittelzusammensetzungen für harte Oberflächen

Title (fr)  
Compositions liquides de nettoyage pour surfaces dures

Publication  
**EP 0859046 B1 20040428 (EN)**

Application  
**EP 97870018 A 19970214**

Priority  
EP 97870018 A 19970214

Abstract (en)  
[origin: EP0859046A1] Liquid hard-surfaces cleaning compositions are disclosed which have a pH above 9 and comprise a copolymer of N-vinylpyrrolidone and an alkylallyl unsaturated monomer or a mixture thereof, preferably a quaternized or unquaternized vinylpyrrolidone/dialkylaminoalkyl acrylate or methacrylate copolymer. These compositions provide excellent first time and next time cleaning performance on hard-surfaces soiled by various soils especially grease while exhibiting excellent stability against bacterial contamination.

IPC 1-7  
**C11D 3/37**

IPC 8 full level  
**C11D 1/72** (2006.01); **C11D 3/20** (2006.01); **C11D 3/37** (2006.01); **C11D 17/08** (2006.01)

CPC (source: EP)  
**C11D 1/72** (2013.01); **C11D 3/2068** (2013.01); **C11D 3/3776** (2013.01); **C11D 1/721** (2013.01)

Cited by  
AU2014339281B2; EA030329B1; EP1362907A3; EP1752524A3; US6562142B2; US7381279B2; US6869028B2; WO2004003124A1; WO0077138A1; WO2015058936A1; US7264678B2; US7256165B2; US7470290B2; US7699941B2; US7700540B2; WO0077144A1; WO0077143A1

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

DOCDB simple family (publication)  
**EP 0859046 A1 19980819; EP 0859046 B1 20040428**; AR 011144 A1 20000802; AT E265518 T1 20040515; BR 9815443 A 20011023; CA 2280860 A1 19980820; CA 2280860 C 20061003; CN 1257534 A 20000621; CO 5050275 A1 20010627; DE 69728853 D1 20040603; DE 69728853 T2 20050421; ES 2221029 T3 20041216; JP 2001511836 A 20010814

DOCDB simple family (application)  
**EP 97870018 A 19970214**; AR P980100665 A 19980213; AT 97870018 T 19970214; BR 9815443 A 19980210; CA 2280860 A 19980210; CN 98804112 A 19980210; CO 98008001 A 19980216; DE 69728853 T 19970214; ES 97870018 T 19970214; JP 53586398 A 19980210