

Title (en)  
Liquid hard-surface cleaner.

Title (de)  
Flüssiges Reinigungsmittel für harte Oberflächen.

Title (fr)  
Agent de nettoyage pour surfaces dures.

Publication  
**EP 0105063 A1 19840411 (EN)**

Application  
**EP 82305211 A 19820930**

Priority  
• EP 82305211 A 19820930  
• CA 385586 A 19810910

Abstract (en)  
Homogeneous liquid hard surface cleaning detergents are comprised of surfactant, hydrotrope, 10.1-19% sequestering builder, and 6-15% of solvent having a molar volume below about 200 cm<sup>3</sup>/gm . mol and Hansen's solubility parameters as follows: polarity parameter from zero to about 3.5 (cal./cm<sup>3</sup>)<sup>0.5</sup> and hydrogen bonding parameter from zero to about 6 (cal./cm<sup>3</sup>)<sup>0.5</sup>. For solvents whose parameters are below about 2, an auxiliary solvent is often needed for solubilization in the formula. A preferred solvent is diethylene glycol mono-n-butyl ether. Cleaning performance at these concurrent high levels of builder and solvent is outstanding, especially for bathroom surfaces such as tubs and walls.

IPC 1-7  
**C11D 3/43**; **C11D 17/00**

IPC 8 full level  
**C11D 3/43** (2006.01); **C11D 17/00** (2006.01)

CPC (source: EP)  
**C11D 3/06** (2013.01); **C11D 3/3418** (2013.01); **C11D 3/43** (2013.01)

Citation (search report)  
• [X] DE 2709690 B1 19780511 - HENKEL KGAA  
• [AD] EP 0040882 A1 19811202 - PROCTER & GAMBLE [US], et al  
• [A] FR 2390499 A1 19781208 - COLGATE PALMOLIVE CO [US]

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**EP 82305211 A 19820930**; CA 385586 A 19810910; GR 820169130 A 19820826; IE 221582 A 19820909; SE 8205171 A 19820910