

Title (en)  
Washing materials containing softening agent.

Title (de)  
Weichmacher enthaltende Waschmittel.

Title (fr)  
Produits de lavage contenant un agent adoucissant.

Publication  
**EP 0163910 A1 19851211 (DE)**

Application  
**EP 85105004 A 19850425**

Priority  
DE 3416472 A 19840504

Abstract (en)  
[origin: US4589988A] Softener-containing washing agents which, in addition to the customary components of washing agents, contain 0 to 10% by weight of a quaternary ammonium compound and 1 to 30% by weight of a softener system which comprises 10 to 90% by weight of a tertiary amine and 90 to 10% by weight of a crystalline sheet-silicate of the formula  $\text{Me}_2\text{Si}_x\text{O}_{2x+1}y\text{H}_2\text{O}$  in which Me denotes an alkali metal ion or a proton, x denotes a number greater than 7, in particular from 7.5 to 23, and y denotes a number smaller than 7 x, in particular smaller than x. In the softener system, the tertiary amine is in a state of adsorption on the alkali metal silicate. The ammonium compounds, which are adsorbed on said silicate, produce a softening effect in the washing agent but on the other hand are compatible with anionic surfactants in the washing agent. produce a softening effect in the washing agent but on the other hand are compatible with anionic surfactants in the washing agent.

Abstract (de)  
Weichmacher enthaltende Waschmittel, die neben den üblichen Bestandteilen für Waschmittel 0 bis 10 Gew.-% einer quartären Ammoniumverbindung sowie 1 bis 30 Gew.-% eines Weichmachersystems enthalten, das aus 10 bis 90 Gew.-% eines tertiären Amins und 90 bis 10 Gew.-% eines kristallinen Schichtsilikats der Formel  $\text{Me}_2\text{Si}_x\text{O}_{2x+1}y\text{H}_2\text{O}$  besteht, worin Me ein Alkalimetall-Ion oder ein Proton, x eine Zahl größer 7, insbesondere von 7,5 bis 23 und y eine Zahl kleiner 7 x, insbesondere kleinere x bedeutet. Das tertiäre Amin ist dabei an das Alkalisilikat adsorbiert. Die Ammoniumverbindungen, adsorbiert an das genannte Silikat, zeigen in dem Waschmittel einen Weichmachungseffekt, sind aber andererseits verträglich mit anionischen Tensiden in dem Waschmittel.

IPC 1-7  
**C11D 3/00; C11D 1/62; C11D 3/08; C11D 3/12**

IPC 8 full level  
**C11D 1/65 (2006.01); C11D 1/62 (2006.01); C11D 3/00 (2006.01); C11D 3/08 (2006.01); C11D 3/12 (2006.01); D06M 11/00 (2006.01); D06M 11/77 (2006.01); D06M 11/79 (2006.01); D06M 13/02 (2006.01); D06M 13/322 (2006.01); D06M 13/325 (2006.01); D06M 13/328 (2006.01); D06M 13/35 (2006.01); D06M 13/352 (2006.01); D06M 13/372 (2006.01); D06M 13/402 (2006.01); D06M 13/405 (2006.01); D06M 13/46 (2006.01); D06M 13/463 (2006.01); D06M 23/02 (2006.01); D06M 23/08 (2006.01)**

CPC (source: EP US)  
**C11D 3/001 (2013.01 - EP US); C11D 3/08 (2013.01 - EP US); C11D 3/124 (2013.01 - EP US); C11D 3/1273 (2013.01 - EP US)**

Citation (search report)  
• [A] EP 0026529 A1 19810408 - PROCTER & GAMBLE LTD [GB], et al  
• [A] EP 0082456 A2 19830629 - HOECHST AG [DE]  
• [AP] EP 0111074 A2 19840620 - DEGUSSA [DE]

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