

## Title (en)

Washing agent having laundry softening properties and process for its production.

## Title (de)

Waschmittel mit Weichspüleigenschaften und Verfahren zu seiner Herstellung.

## Title (fr)

Agent de lavage ayant des qualités adoucissant le linge et procédé pour sa production.

## Publication

**EP 0151936 A2 19850821 (DE)**

## Application

**EP 85100278 A 19850112**

## Priority

DE 3402437 A 19840125

## Abstract (en)

1. A detergent based on anionic and non-ionic surfactants that has fabric-softening properties, characterized in that it contains, as fabric softener, from 5 to 25 % by weight of a powdered fabric-softening agent consisting of A) from 60 to 80 % by weight of a fabric softener based on one or more nitrogenous cationic surface-active substances having at least one hydrocarbon group that is attached to the nitrogen atom and has at least 8 carbon atoms, which softener optionally contains conventional additives, wherein the surface-active substances consist of at least one of the following compounds : a) a quaternary ammonium compound of the formula see diagramm : EP0151936,P6,F1 wherein R\*\*1 and R\*\*2 are alkyl radicals having from 8 to 24 C-atoms, R\*\*3 and R\*\*4 are alkyl radicals having from 1 to 4 C-atoms, and A- is an anion, b) an alkylimidazolinium compound of the general formula see diagramm : EP0151936,P7,F2 wherein R\*\*5 is an alkyl radical having from 1 to 4 C-atoms, R\*\*6 is an alkyl radical having from 8 to 25 C-atoms, R\*\*7 is an alkyl radical having from 1 to 4 C-atoms or is hydrogen, and R\*\*8 is an alkyl radical having from 8 to 25 C-atoms, and A- is an anion, c) a quaternary ammonium compound of the general formula see diagramm : EP0151936,P7,F3 wherein R\*\*9 and R\*\*10 are alkyl radicals having from 8 to 24 C-atoms or are fatty acid amidoalkyl radicals, R\*\*11 is an alkyl radical having from 1 to 4 C-atoms, R\*\*12 is hydrogen or methyl, x is an interger from 1 to 5, and A- is an anion, and B) from 20 to 40 % by weight of a highly adsorbent silicic acid having a surface area of from approximately 250 to approximately 600 m\*\*2/g, wherein component A) has been adsorbent onto component B).

## Abstract (de)

Die Erfindung betrifft ein pulverförmiges Wäscheweichspülmittel, bestehend aus einem Wäscheweichspüler auf der Basis stickstoffhaltiger kationischer oberflächenaktiver Substanzen, adsorbiert auf hochsaugfähiger Kieselsäure, ein Verfahren zu seiner Herstellung sowie derartige pulverförmige Wäscheweichspülmittel enthaltende Waschmittel mit Weichspüleigenschaften.

## IPC 1-7

**C11D 3/00; C11D 3/12; C11D 17/00**

## IPC 8 full level

**C11D 1/62** (2006.01); **C11D 3/00** (2006.01); **C11D 3/04** (2006.01); **C11D 3/12** (2006.01); **C11D 11/00** (2006.01); **C11D 17/00** (2006.01)

## CPC (source: EP)

**C11D 1/62** (2013.01); **C11D 3/001** (2013.01); **C11D 3/124** (2013.01)

## Citation (applicant)

- EP 0008829 A1 19800319 - PROCTER & GAMBLE [US], et al
- EP 0004121 A1 19790919 - PROCTER & GAMBLE [US]
- "Tensid-Taschenbuch", CARL HANSER VERLAG
- "Waschmittelchemie", 1976, HÜTHIG-VERLAG, HEIDELBERG

## Cited by

EP0881279A3; EP0523287A1; GB2507750A; US4919846A; EP0247832A1; GB2313602A; EP0175287A3; EP0359630A1; FR2636342A1; US7288498B1; WO02081612A1

## Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

## DOCDB simple family (publication)

**EP 0151936 A2 19850821; EP 0151936 A3 19861120; EP 0151936 B1 19890503**; AT E42763 T1 19890515; AU 3772285 A 19850801; AU 578261 B2 19881020; CA 1230454 A 19871222; DE 3402437 A1 19850725; DE 3569939 D1 19890608; DK 162657 B 19911125; DK 16885 A 19850726; DK 16885 D0 19850114; JP S60221492 A 19851106; NO 850289 L 19850726; ZA 85625 B 19850925

## DOCDB simple family (application)

**EP 85100278 A 19850112**; AT 85100278 T 19850112; AU 3772285 A 19850116; CA 472217 A 19850116; DE 3402437 A 19840125; DE 3569939 T 19850112; DK 16885 A 19850114; JP 930885 A 19850123; NO 850289 A 19850124; ZA 85625 A 19850125