

Title (en)
Granules containing cationic surfactant

Title (de)
Kationentensidhaltige Granulate

Title (fr)
Granules contenant un tensioactif cationique

Publication
EP 0881279 B2 20070418 (DE)

Application
EP 98108983 A 19980518

Priority
DE 19721885 A 19970526

Abstract (en)
[origin: EP0881279A2] A solid granulate is claimed which contains (A) 50-40 wt.% cationic, textile-softening agent of formula (I), (II) and/or (III), where R<1> = 1-6C alkyl, alkenyl or hydroxyalkyl; R<2> = 8-28C alkyl or alkenyl; R<3> = as for R<1> or -(CH₂)_n-T-R<2>; R<4> = as for R<1> or R<2>, or -(CH₂)_n-T-R<2>; T = -CH₂-, -O-CO- or -CO-O-; and n = 0-5; (B) 50-90 wt.% solid carrier comprising an alkali metal-sulphate, -carbonate, -silicate, -citrate or -aluminium silicate or citric acid; and (C) 0-5 wt.% granulating auxiliaries. Also claimed is production of the granulate by low energy impacting of a solid carrier with a cationic surfactant in a mixer, followed by high energy granulation in the presence of water or an aqueous solution of a granulating auxiliary.

IPC 8 full level
C11D 1/62 (2006.01); **C11D 17/00** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP)
C11D 1/62 (2013.01); **C11D 17/0034** (2013.01); **C11D 17/06** (2013.01)

Citation (opposition)

Opponent :

- WO 9617042 A1 19960606 - PROCTER & GAMBLE [US], et al
- US 3573091 A 19710330 - WALDMAN MILTON M, et al
- US 4510073 A 19850409 - HARA NOBORU [JP], et al
- EP 0547722 A1 19930623 - COLGATE PALMOLIVE CO [US]
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- US 4764292 A 19880816 - SEPULVEDA RALPH R [US], et al
- WO 9705221 A1 19970213 - PROCTER & GAMBLE [US], et al
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- Chemical Abstracts of JP 63254199, JP 63138000, JP 01213476, JP 57010699, JP 59024800.
- The manufacture of detergent powder, de Groot, 1995, University of Eindhoven, Netherlands

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