

Title (en)
DETERGENT BUILDER

Publication
EP 0191187 A3 19870826 (DE)

Application
EP 85115963 A 19851213

Priority
DE 3504451 A 19850209

Abstract (en)
[origin: US4668420A] A granulated detergent builder is disclosed comprising: 65 to 85 weight percent of a water insoluble silicate capable of binding calcium, in the form of a finely dispersed, bound-water-containing, synthetically produced, water insoluble crystalline compound having the general formula: $(\text{Cat}_2/\text{nO})_x.\text{Me}_2\text{O}_3.(\text{SiO}_2)_y$ (I), in which Cat is a cation exchangeable with calcium with the valency n, x is a number from 0.7 to 1.5, Me is boron or aluminum, and y a number from 0.8 to 6, 4 to 10 weight percent sodium nitrilotriacetate 1.5 to 3 weight percent nonionic surfactant 0 to 1 weight percent alkali 0.5 to 1.5 weight percent carboxymethyl cellulose and/or methylcellulose and the balance is water. The product can be produced by spray drying an aqueous suspension in which all ingredients are dispersed or dissolved.

IPC 1-7
C11D 3/12; **C11D 3/22**; **C11D 3/33**

IPC 8 full level
C11D 3/12 (2006.01); **C11D 3/22** (2006.01); **C11D 3/33** (2006.01)

CPC (source: EP US)
C11D 3/128 (2013.01 - EP US); **C11D 3/225** (2013.01 - EP US); **C11D 3/33** (2013.01 - EP US)

Citation (search report)
• [Y] DE 3120744 A1 19821209 - BENCKISER GMBH JOH A [DE]
• [Y] DE 3132767 A1 19830310 - DEGUSSA [DE]
• [Y] EP 0013028 A1 19800709 - HENKEL KGAA [DE]

Cited by
EP0279038A1; EP0520582A1; EP0508934A1; WO9859027A1

Designated contracting state (EPC)
AT CH DE FR IT LI NL SE

DOCDB simple family (publication)
EP 0191187 A2 19860820; **EP 0191187 A3 19870826**; **EP 0191187 B1 19890118**; AT E40150 T1 19890215; CA 1242951 A 19881011; DE 3504451 A1 19860814; DE 3567675 D1 19890223; JP S61183396 A 19860816; US 4668420 A 19870526

DOCDB simple family (application)
EP 85115963 A 19851213; AT 85115963 T 19851213; CA 501314 A 19860207; DE 3504451 A 19850209; DE 3567675 T 19851213; JP 2605986 A 19860210; US 82035386 A 19860121