

Title (en)
PHOSPHATE-FREE DETERGENT BUILDER

Publication
EP 0289768 A3 19890906 (DE)

Application
EP 88104629 A 19880323

Priority
DE 3715051 A 19870506

Abstract (en)
[origin: EP0289768A2] The builder consists of a water-soluble silicate able to bind calcium ions, and of a mixture of two polyacrylic acids which have different viscosity numbers.

IPC 1-7
C11D 3/37; **C11D 3/12**

IPC 8 full level
C11D 3/12 (2006.01); **C11D 3/37** (2006.01)

CPC (source: EP KR US)
C11D 3/12 (2013.01 - KR); **C11D 3/128** (2013.01 - EP US); **C11D 3/37** (2013.01 - KR); **C11D 3/3761** (2013.01 - EP US)

Citation (search report)

- [X] EP 0137669 A1 19850417 - PROCTER & GAMBLE [US], et al
- [A] DE 2430144 A1 19750424 - HENKEL & CIE GMBH
- [A] FR 2249835 A1 19750530 - DEGUSSA [DE]
- [AD] EP 0108429 A1 19840516 - PROCTER & GAMBLE [US]

Cited by
GB2234980A; EP0421664A3; WO2010109164A1

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

DOCDB simple family (publication)
EP 0289768 A2 19881109; **EP 0289768 A3 19890906**; DE 3715051 A1 19881117; DK 244788 A 19881107; DK 244788 D0 19880505; FI 882074 A0 19880504; FI 882074 A 19881107; IN 170841 B 19920530; JP S63286494 A 19881124; KR 880014092 A 19881222; KR 900004495 B1 19900628; PT 87411 A 19890531; PT 87411 B 19920831; US 5076957 A 19911231

DOCDB simple family (application)
EP 88104629 A 19880323; DE 3715051 A 19870506; DK 244788 A 19880505; FI 882074 A 19880504; IN 358CA1988 A 19880503; JP 10924688 A 19880506; KR 880005180 A 19880504; PT 8741188 A 19880505; US 47465890 A 19900206