

Title (en)

Low pH granular laundry detergent compositions containing aluminosilicate citric acid and carbonate builders.

Title (de)

Niedrig-pH-Waschmittelgranulate enthaltend Aluminiumsilikat, Zitronensäure und Carbonatbuilder.

Title (fr)

Compositions détergentes granulaires pour le linge ayant un pH bas et contenant des renforceurs d'aluminosilicate, d'acide citrique et de carbonate.

Publication

**EP 0456315 A2 19911113 (EN)**

Application

**EP 91201057 A 19910503**

Priority

US 52057190 A 19900508

Abstract (en)

Low pH, dense granular laundry detergent compositions contain a specific aluminosilicate, citric acid and carbonate builder system, and little or no phosphate. The compositions provide good cleaning and have good physical properties.

IPC 1-7

**C11D 3/10**; **C11D 3/12**; **C11D 3/20**

IPC 8 full level

**C11D 1/37** (2006.01); **C11D 3/10** (2006.01); **C11D 3/12** (2006.01); **C11D 3/20** (2006.01); **C11D 3/60** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP)

**C11D 3/10** (2013.01); **C11D 3/128** (2013.01); **C11D 3/2086** (2013.01)

Cited by

EP0863199A3; EP1416039A1; US5583098A; GB2271998A; US5338476A; EP1416040A1; US5723428A; US6114297A; EP0889117A4; US5300250A; TR26724A; US6936577B2; WO2015096095A1; WO9314182A1; WO9218596A1; US7026278B2; EP1272602B2

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**EP 0456315 A2 19911113**; **EP 0456315 A3 19920205**; **EP 0456315 B1 19960821**; AR 244332 A1 19931029; AT E141639 T1 19960915; AU 7856791 A 19911127; CA 2081324 A1 19911109; CN 1057292 A 19911225; DE 69121460 D1 19960926; ES 2090229 T3 19961016; JP H05507744 A 19931104; MX 172329 B 19931213; TW 200525 B 19930221; WO 9117232 A1 19911114

DOCDB simple family (application)

**EP 91201057 A 19910503**; AR 31963691 A 19910508; AT 91201057 T 19910503; AU 7856791 A 19910506; CA 2081324 A 19910506; CN 91103778 A 19910508; DE 69121460 T 19910503; ES 91201057 T 19910503; JP 50903191 A 19910506; MX 2571491 A 19910508; TW 80104321 A 19910603; US 9103109 W 19910506