

Title (en)

FORMATION OF DISCRETE, HIGH ACTIVE DETERGENT GRANULES USING A CONTINUOUS NEUTRALIZATION SYSTEM

Publication

**EP 0402112 A3 19910313 (EN)**

Application

**EP 90306139 A 19900606**

Priority

US 36472189 A 19890609

Abstract (en)

[origin: EP0402112A2] A process for making discrete, high active detergent particles by: (a) reacting in a continuous neutralization system alkyl sulfuric acid and/or alkyl benzene sulfonic acid with an alkali metal hydroxide solution, (b) adding to the system polyethylene glycol of molecular weight about 4,000-50,000 and/or certain ethoxylated nonionic surfactants, and (c) forming detergent particles. The alkali metal hydroxide solution is greater than or equal to about 62% by weight of the hydroxide, and the neutralized product has less than or equal to about 12% by weight of water. Granular detergent compositions containing the detergent granules are also described.

IPC 1-7

**C11D 11/04; C11D 1/831**

IPC 8 full level

**C11D 10/02** (2006.01); **C11D 3/37** (2006.01); **C11D 11/00** (2006.01); **C11D 11/02** (2006.01); **C11D 11/04** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP KR)

**C11D 3/3707** (2013.01 - EP); **C11D 11/04** (2013.01 - EP); **C11D 17/00** (2013.01 - KR); **C11D 17/06** (2013.01 - EP); **C11D 17/065** (2013.01 - EP)

Citation (search report)

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**EP 0402112 A2 19901212; EP 0402112 A3 19910313; EP 0402112 B1 19960814;** AR 242985 A1 19930630; AU 5696590 A 19901213; AU 643440 B2 19931118; BR 9002720 A 19910820; CA 2017922 A1 19901209; CA 2017922 C 19950711; CN 1026596 C 19941116; CN 1048408 A 19910109; DE 69028043 D1 19960919; DE 69028043 T2 19970306; EG 19507 A 19950629; ES 2090102 T3 19961016; FI 902874 A0 19900609; IE 902074 L 19901209; JP 2807048 B2 19980930; JP H0372600 A 19910327; KR 910001028 A 19910130; MA 21868 A1 19901231; MX 171874 B 19931122; NZ 234000 A 19911223; PT 94312 A 19910208; TR 26363 A 19950315

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