

Title (en)

PROCESSES FOR MAKING A GRANULAR DETERGENT COMPOSITION CONTAINING MODIFIED CARBOXY METHYL CELLULOSE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES GRANULAREN WASCHMITTELS ENTHALTEND EINE MODIFIZIERTE CARBOXYMETHYLCELLULOSE

Title (fr)

PROCEDES PERMETTANT DE PREPARER UNE COMPOSITION DETERGENTE EN GRANULES CONTENANT DE LA CARBOXYMETHYLCELLULOSE MODIFIEE

Publication

EP 1141197 B1 20021127 (EN)

Application

EP 99966543 A 19991221

Priority

- US 9930556 W 19991221
- US 11330698 P 19981222

Abstract (en)

[origin: WO0037598A1] A process for continuously preparing detergent agglomerates comprising the steps of continuously mixing a liquid binder comprising of a mixture of surfactants and a copolymer of epichlorohydrin and a cyclic amine moiety and dry detergent materials into a high speed mixer/densifier to obtain detergent agglomerates. The ratio of the liquid binder to the dry detergent material is from about 1:10 to about 10:1, and the dry detergent materials comprise modified carboxy methyl cellulose. The agglomerates are then optionally mixed in a moderate speed mixer/densifier to further densify them. Finally, the detergent agglomerates are dried so as to increase their density.

IPC 1-7

C11D 3/22; **C11D 11/00**; **C11D 17/06**; **C11D 11/02**

IPC 8 full level

B01J 2/10 (2006.01); **B01J 2/28** (2006.01); **C11D 1/22** (2006.01); **C11D 1/29** (2006.01); **C11D 3/22** (2006.01); **C11D 3/37** (2006.01); **C11D 11/00** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP)

C11D 3/225 (2013.01); **C11D 11/0082** (2013.01); **C11D 17/065** (2013.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0037598 A1 20000629; AR 023072 A1 20020904; AT E28559 T1 20021215; AU 2205500 A 20000712; BR 9916501 A 20010904; CA 2352814 A1 20000629; CN 1168809 C 20040929; CN 1331738 A 20020116; DE 69904236 D1 20030109; DE 69904236 T2 20030821; EP 1141197 A1 20011010; EP 1141197 B1 20021127; ES 2186431 T3 20030501; JP 2002533530 A 20021008

DOCDB simple family (application)

US 9930556 W 19991221; AR P990106661 A 19991222; AT 99966543 T 19991221; AU 2205500 A 19991221; BR 9916501 A 19991221; CA 2352814 A 19991221; CN 99815018 A 19991221; DE 69904236 T 19991221; EP 99966543 A 19991221; ES 99966543 T 19991221; JP 2000589655 A 19991221