

Title (en)

Two stage drying of detergent compositions.

Title (de)

Zweistufiges Trocknen von Waschmittelzusammensetzungen.

Title (fr)

Procédé en deux étapes de séchage de compositions de détergent.

Publication

EP 0349199 B1 19950308 (EN)

Application

EP 89306334 A 19890623

Priority

US 21280588 A 19880629

Abstract (en)

[origin: EP0349199A1] Granular detergent compositions are prepared by forming an aqueous slurry containing tripolyphosphate, pyrophosphate and/or silicate, other neutral or alkaline salt, and optional detergent surfactant, spray drying the slurry in a spray tower to partially dry the granules, and then completing the drying of the granules in a secondary dryer. During the drying process, the granule temperature does not exceed about 90°C to minimize reversion of polyphosphate and formation of silicate insolubles. The resulting granules exhibit improved physical properties versus conventional spray dried granules containing the same water content, or similar physical properties at higher moisture levels.

IPC 1-7

C11D 11/02; **C11D 1/02**; **C11D 3/06**; **C11D 3/08**; **C11D 3/12**

IPC 8 full level

C11D 3/06 (2006.01); **C11D 3/12** (2006.01); **C11D 11/02** (2006.01)

CPC (source: EP)

C11D 3/06 (2013.01); **C11D 3/128** (2013.01); **C11D 11/02** (2013.01)

Citation (examination)

- US 3629951 A 19711228 - DAVIS ROBERT P, et al
- US 3629955 A 19711228 - DAVIS ROBERT P, et al
- US 4019998 A 19770426 - BENSON RICHARD W, et al

Cited by

EP1754776A1; GB2318584A; EP0934395A4; US7910533B2; US8129323B2; US7910534B2; WO2007020608A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 0349199 A1 19900103; **EP 0349199 B1 19950308**; DE 68921512 D1 19950413; DE 68921512 T2 19951109; ES 2068894 T3 19950501

DOCDB simple family (application)

EP 89306334 A 19890623; DE 68921512 T 19890623; ES 89306334 T 19890623