

Title (en)  
PROCESS FOR PREPARING A SPRAY DRIED DETERGENT PARTICLE

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES SPRÜHGETROCKNETEN WASCHMITTELPARTIKELS

Title (fr)  
PROCÉDÉ DE PRÉPARATION D'UNE PARTICULE DE DÉTERGENT SÉCHÉE PAR ATOMISATION

Publication  
**EP 4341369 A1 20240327 (EN)**

Application  
**EP 22729217 A 20220517**

Priority  
• EP 21174573 A 20210519  
• EP 2022063266 W 20220517

Abstract (en)  
[origin: WO2022243283A1] The present invention relates to a process for preparing of a particulate, free flowing detergent particle by a slurry making and spray drying technique. In particular it relates to the process for preparing a slurry with lower alkalinity for the production of spray dried laundry detergent particle. Thus, there is a need to provide a spray dried detergent particle which has lowered levels of the deterative surfactant without adversely affecting the free-flowing powder properties over extended storage life. It is thus an object of the present invention to provide a spray-dried particle prepared from a process comprising a stable, non-phase separating detergent slurry which upon spray drying provides for a spray-dried detergent particle having optimum levels of carbonate builder levels and silicate salt. The present inventors have found that a spray dried detergent particle having an in-situ formed silicate and/or a disilicate a salt of alkaline earth metal, by reacting an alkali metal silicate with an alkaline earth metal salt, along with an alkali metal silicate salt provides for excellent powder properties when the deterative surfactant content is lowered, it also provides extended shelf life without getting caked. It is also surprisingly found that the spray-dried particle provides desired pH in wash solution required for good stain removal performance without being harsh on the hands or the fabrics.

IPC 8 full level  
**C11D 1/02** (2006.01); **C11D 3/04** (2006.01); **C11D 3/08** (2006.01); **C11D 3/10** (2006.01); **C11D 3/12** (2006.01); **C11D 11/02** (2006.01)

CPC (source: EP)  
**C11D 1/02** (2013.01); **C11D 3/046** (2013.01); **C11D 3/08** (2013.01); **C11D 3/10** (2013.01); **C11D 11/02** (2013.01); **C11D 3/122** (2013.01); **C11D 3/1233** (2013.01)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022243283 A1 20221124**; BR 112023024057 A2 20240206; CN 117255847 A 20231219; EP 4341369 A1 20240327

DOCDB simple family (application)  
**EP 2022063266 W 20220517**; BR 112023024057 A 20220517; CN 202280030794 A 20220517; EP 22729217 A 20220517