

Title (en)
Detergent compositions and process for preparing them.

Title (de)
Reinigungsmittel und Verfahren zu deren Herstellung.

Title (fr)
Compositions détergentes et leur procédé de préparation.

Publication
EP 0438320 A2 19910724 (EN)

Application
EP 91300422 A 19910118

Priority
GB 9001285 A 19900119

Abstract (en)
A batch process for the preparation of detergent powder of high bulk density comprises neutralising a detergent acid (anionic surfactant precursor), eg linear alkylbenzene sulphonic acid, with a particulate solid water-soluble alkaline inorganic material, for example, sodium carbonate (optionally plus other alkaline materials and/or detergency builders, for example, alkali metal aluminosilicate), in a high-speed mixer/granulator, eg Fukae mixer, and granulating the product in the mixer. The reaction mixture remains particulate throughout the process, without the need to keep the temperature during the neutralisation step to 55 DEG C or below, and a high-quality high-bulk-density particulate product is obtained.

IPC 1-7
C11D 3/00; **C11D 11/00**; **C11D 11/04**; **C11D 17/06**

IPC 8 full level
C11D 11/00 (2006.01); **C11D 11/04** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP KR)
C11D 1/00 (2013.01 - KR); **C11D 11/04** (2013.01 - EP); **C11D 17/065** (2013.01 - EP)

Cited by
US5703037A; US5486317A; EP1832648A1; CN1078246C; US5565137A; US5916867A; CN1105179C; DE10232304A1; DE10232304B4; US6191095B1; US5573697A; US5929021A; CN1054632C; EP0853117A1; US5736501A; US5945395A; US6576605B1; US7446085B2; WO0024861A1; WO0018872A1; WO9529215A1; WO9739100A1; WO9961576A1; US7186677B2; US6468957B1; US6221831B1; WO9519421A1; WO2011061045A1; EP0730637B2

Designated contracting state (EPC)
CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0438320 A2 19910724; **EP 0438320 A3 19920219**; AU 640979 B2 19930909; AU 6938991 A 19910725; BR 9100127 A 19911022; CA 2034244 A1 19910720; CA 2034244 C 19991130; GB 9001285 D0 19900321; IN 171897 B 19930130; JP 2918710 B2 19990712; JP H04363398 A 19921216; KR 910014499 A 19910831; KR 960000207 B1 19960103; MY 107892 A 19960629; TR 27438 A 19950524; ZA 91385 B 19920930

DOCDB simple family (application)
EP 91300422 A 19910118; AU 6938991 A 19910116; BR 9100127 A 19910114; CA 2034244 A 19910116; GB 9001285 A 19900119; IN 17BO1991 A 19910115; JP 7554491 A 19910118; KR 910000856 A 19910118; MY PI19910070 A 19910116; TR 2891 A 19910115; ZA 91385 A 19910118