

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

Title (de)
Waschmittelzusammensetzungen und Verfahren zu deren Herstellung.

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

Publication
EP 0351937 A1 19900124 (EN)

Application
EP 89304210 A 19890427

Priority
GB 8817386 A 19880721

Abstract (en)
A granular detergent composition or component therefor having a bulk density of at least 650 g/litre is prepared by granulating a particulate material, preferably spray-dried, in a high-speed mixer/granulator having both a stirring action and a cutting action, in the absence of an agent for improving surface properties. The particulate starting material comprises (a) from 12 to 70 wt% of non-soap detergent-active material (preferably consisting at least partially of anionic detergent-active material) and (b) at least 15 wt% of water-soluble crystalline inorganic salts, including sodium tripolyphosphate and/or sodium carbonate, the weight ratio of (b) to (a) being at least 0.4:1.

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Citation (search report)

- [Y] DE 3617756 A1 19861211 - LION CORP [JP]
- [A] FR 1594106 A 19700601
- DATABASE WPIL, No. 89-66623/09, 1989, Derwent Publication Ltd.; & JP-A- 1020298
- [YPD] DATABASE WPIL
- DATABASE WPIL, No. 86-133904, 1986, Derwent Publications Ltd.; & JP-A- 61069897
- [A] DATABASE WPIL
- PATENT ABSTRACTS OF JAPAN, vol. 2, no. 59, 27 April 1978; & JP-A- 5316713
- PATENT ABSTRACTS OF JAPAN

Cited by
US5665692A; US5527489A; EP0643129A1; EP0430328A3; US5733862A; US5665691A; US5576285A; US5691294A; CN1116400C; US5554587A; EP0460897A3; US5298183A; US5968891A; US6046153A; US5565137A; US6069124A; AU724105B2; US5616550A; US5668099A; US5574005A; US5516448A; USH1604H; US5914307A; US5565422A; US5496487A; US5486303A; US6093690A; US5691297A; US5707959A; US5569645A; US5489392A; US5707958A; US6610645B2; WO9911749A1; WO2006021294A1; WO9732005A1; WO9732003A1; WO9816618A3; US6303558B1; US6191095B1; US6221831B1; US6207635B1; WO9854286A1

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EP 89304210 A 19890427; AU 3375189 A 19890427; BR 8902006 A 19890428; CA 597591 A 19890424; DE 68912983 T 19890427; ES 89304210 T 19890427; GB 8817386 A 19880721; GB 8910087 A 19890503; HK 86594 A 19940825; IN 113BO1989 A 19890428; IN 114BO1989 A 19890428; JP 11194689 A 19890428; KR 890005623 A 19890428; KR 890010340 A 19890721; MY PI19890581 A 19890428; PH 38585 A 19890428; TR 32289 A 19890428; ZA 893186 A 19890428; ZA 895578 A 19890721