

Title (en)
METERING SYSTEM FOR RELEASING AT LEAST THREE DIFFERENT PREPARATIONS DURING A WASHING PROGRAMME OF A WASHING MACHINE

Title (de)
DOSIERSYSTEM ZUR FREISETZUNG VON WENIGSTENS DREI UNTERSCHIEDLICHEN ZUBEREITUNGEN WÄHREND EINES WASCHPROGRAMMS EINER WASCHMASCHINE

Title (fr)
SYSTÈME DE DOSAGE POUR LIBÉRER AU MOINS TROIS PRÉPARATIONS DIFFÉRENTES PENDANT UN PROGRAMME DE LAVAGE D'UN LAVE-LINGE

Publication
EP 2521810 B1 20170531 (DE)

Application
EP 10778943 A 20101103

Priority
• DE 102010027994 A 20100420
• EP 2010066666 W 20101103

Abstract (en)
[origin: WO2011131257A1] The invention relates to a metering system (1) for releasing preparations in the interior of a washing machine, comprising a metering device (5) and a cartridge that can be coupled to the metering device, wherein said cartridge comprises at least three chambers (3a, 3b, 3c) containing flowable preparations which differ from one another. According to the invention, the first chamber contains at least one enzyme, selected from the group of amylases, mananases, cellulases, lipases and/or pectate lyases, and at least one surfactant and/or complexing agent, the second chamber comprises at least one protease and at least one surfactant and/or complexing agent, and the third chamber comprises at least one fragrance and/or an optical brightener.

IPC 8 full level
D06F 39/02 (2006.01)

CPC (source: EP KR US)
D06F 33/37 (2020.02 - KR); **D06F 39/022** (2013.01 - EP KR US); **D06F 2103/22** (2020.02 - KR); **D06F 2105/42** (2020.02 - KR)

Citation (opposition)
Opponent : The Procter & Gamble Company
• WO 02070641 A1 20020912 - HENKEL KGAA [DE], et al
• DATABASE GNDP September 1999 (1999-09-01), "Megaperls", XP055722087, retrieved from MINTEL Database accession no. 584
• DATABASE GNPD August 2005 (2005-08-01), "Biological powder with essence of comfort", XP055722100, Database accession no. 389010
• ANONYMOUS: "Wash Cycles", INDESIT IWC 5105, 2009, pages 1, XP055722138
• ANONYMOUS: "Bosch logixx 10 wbb24756GB", BOSCH, August 2007 (2007-08-01), pages 1, XP055722137
• DATABASE GNPD April 2002 (2002-04-01), "Fabric detergent", XP055722104, retrieved from Mintel Database accession no. 19686
• October 2002 (2002-10-01), "Ariel automat fabric detergent", XP055722109, retrieved from Mintel Database accession no. 171383
• DATABASE GNPD February 2000 (2000-02-01), "Colour care biological detergent", XP055722050, retrieved from Mintel Database accession no. 147229
• DATABASE GPND October 2002 (2002-10-01), "Laundry detergent powder", XP055722059, retrieved from Mintel Database accession no. 401928
Opponent : The Proctor & Gamble
• EP 0611159 A1 19940817 - BRIGHTWELL DISPENSERS LTD [GB]
• WO 9827858 A2 19980702 - HENKEL ECOLAB GMBH & CO OHG [DE], et al
• WO 2009095003 A1 20090806 - WEBER LOTHAR ERNST WILHELM [DE]
• US 7481081 B2 20090127 - HSU FENG-LUNG GORDON [US], et al
• ANONYMOUS: "User Handbook - Model WM12", HOTPOINT, 1994, pages 1 - 20, XP055476648
• "User Manual new wave", HOOVER, 1992, pages 1 - 20, XP055476653
• ANONYMOUS: "Washing Machine Margherita Instructions for Installation and Use", ARISTON, 1993, pages 1 - 27, XP055476658
• PERSIL AUTOMATIC COMPOSITION REPORT
• ARIEL ULTRA, ARIEL AUTOMATIC AND BOLD 3 COMPOSITION REPORT
• MICHAEL SHOWELL: "Handbook of Detergents, Part D: Formulation", CRC PRESS, article "3 Laundry Detergent Formulations", pages: 51 - 104, XP055476696

Cited by
IT201900022392A1; EP4386072A2

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

DOCDB simple family (publication)
DE 102010027994 A1 20111020; EP 2521810 A1 20121114; EP 2521810 B1 20170531; ES 2637958 T3 20171018; HU E033430 T2 20171128; KR 20130062273 A 20130612; PL 2521810 T3 20171031; US 2013036775 A1 20130214; WO 2011131257 A1 20111027

DOCDB simple family (application)
DE 102010027994 A 20100420; EP 10778943 A 20101103; EP 2010066666 W 20101103; ES 10778943 T 20101103; HU E10778943 A 20101103; KR 20127027411 A 20101103; PL 10778943 T 20101103; US 201213653566 A 20121017