Title (en)

BALL-SHAPED TOILET BLOCKS BASED ON ANIONIC SURFACTANTS

Title (de)

KUGELFÖRMIGE WC-STEINE AUF ANIONTENSIDBASIS

Title (fr)

BLOCS WC SPHÉRIQUES À BASE D'AGENTS TENSIOACTIFS ANIONIQUES

Publication

EP 2638137 B1 20170823 (DE)

Application

EP 11787809 A 20111111

Priority

• DE 102010043848 A 20101112
• EP 2011069965 W 20111111

Abstract (en)

[origin: CA2817413A1] A toilet cleaning block which comprises perfume, at least one alkylbenzenesulphonate and at least one olefinsulphonate and not more than 2.5% by weight of nonionic surfactants can be shaped in a rolling machine or a press to give a rotationally symmetric body, especially to give a ball, and is employed in a system composed of at least one cleaning block and at least one release device.

IPC 8 full level

C11D 1/37 (2006.01); **C11D 1/14** (2006.01); **C11D 1/22** (2006.01); **C11D 3/48** (2006.01); **C11D 3/50** (2006.01); **C11D 17/00** (2006.01); **E03D 9/00** (2006.01); **E03D 9/02** (2006.01)

CPC (source: EP KR US)

C11D 1/37 (2013.01 - EP KR US); **C11D 3/48** (2013.01 - KR); **C11D 3/50** (2013.01 - EP KR US); **C11D 17/0056** (2013.01 - EP US); **E03D 9/005** (2013.01 - US); **E03D 9/02** (2013.01 - KR); C11D 1/143 (2013.01 - EP US); C11D 1/22 (2013.01 - EP US)

Cited by

USD850578S; USD912761S; USD841120S; EP4011406A1; WO2022122869A1; US10344462B2; USD914131S; US11312922B2; US11891586B2

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

DOCDB simple family (publication)

DE 102010043848 A1 20120516; AU 2011327998 A1 20130704; AU 2011327998 B2 20141127; BR 112013011456 A2 20160809; CA 2817413 A1 20120518; CA 2817413 C 20180925; CN 103210072 A 20130717; CN 103210072 B 20151125; CR 20130215 A 20130628; EP 2638137 A1 20130918; EP 2638137 B1 20170823; GE P20176613 B 20170210; GT 201300120 A 20150706; HK 1187362 A1 20140404; HU E035591 T2 20180528; IL 226254 A0 20130731; JP 2014501801 A 20140123; JP 5934715 B2 20160615; KR 20130119446 A 20131031; MX 2013005308 A 20130603; MY 161254 A 20170414; NZ 611639 A 20150529; PL 2638137 T3 20180131; RU 2013126792 A 20141220; SG 190192 A1 20130628; US 2013239313 A1 20130919; WO 2012062914 A1 20120518; ZA 201304285 B 20140326

DOCDB simple family (application)

DE 102010043848 A 20101112; AU 2011327998 A 20111111; BR 112013011456 A 20111111; CA 2817413 A 20111111; CN 201180054080 A 20111111; CR 20130215 A 20130510; EP 11787809 A 20111111; EP 2011069965 W 20111111; GE AP2011013113 A 20111111; GT 201300120 A 20130510; HK 14100336 A 20140110; HU E11787809 A 20111111; IL 22625413 A 20130509; JP 2013538212 A 20111111; KR 20137015026 A 20111111; MX 2013005308 A 20111111; MY PI2013001632 A 20111111; NZ 61163911 A 20111111; PL 11787809 T 20111111; RU 2013126792 A 20111111; SG 2013035159 A 20111111; US 201313890837 A 20130509; ZA 201304285 A 20130611