

Title (en)

HEAVY DUTY DETERGENT SHEET CONTAINING A WASHING-ACTIVE SUBSTRATE

Title (de)

VOLLWASCHMITTEL TUCH MIT WASCHAKTIVEM SUBSTRAT

Title (fr)

LINGETTE À DÉTERGENT TOUS LAVAGES MUNIE D'UN SUBSTRAT DÉTERGENT

Publication

EP 3186351 B1 20230607 (DE)

Application

EP 15771501 A 20150820

Priority

- DE 102014012380 A 20140825
- DE 2015000416 W 20150820

Abstract (en)

[origin: CA2986159A1] The invention relates to a homogeneous three-phase detergent sheet and to a method for producing same. According to the invention, washing-active, water-insoluble substances that are solid at room temperature are integrated into a substrate that is solid at room temperature so that the substances are homogeneously distributed across the substrate once integrated into it, and the substrate functionalized in this manner is then impregnated with a liquid impregnation medium. The substances integrated into the sheet can contain zeolites and/or layer silicates and/or optical brighteners.

IPC 8 full level

C11D 3/12 (2006.01); **C11D 3/42** (2006.01); **C11D 17/04** (2006.01)

CPC (source: CN EP RU US)

C11D 1/02 (2013.01 - US); **C11D 3/12** (2013.01 - RU); **C11D 3/1253** (2013.01 - CN EP US); **C11D 3/128** (2013.01 - CN EP US);
C11D 3/42 (2013.01 - CN EP RU US); **C11D 17/04** (2013.01 - RU); **C11D 17/041** (2013.01 - CN EP US); **C11D 2111/12** (2024.01 - US)

Citation (examination)

US 2003207630 A1 20031106 - GRAHAM LONZELL [US], et al

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 102014012380 A1 20160225; CA 2986159 A1 20160303; CN 107075430 A 20170818; EP 3186351 A1 20170705; EP 3186351 B1 20230607;
EP 3186351 C0 20230607; ES 2950613 T3 20231011; PL 3186351 T3 20231120; RU 2017105624 A 20181001; RU 2017105624 A3 20181001;
RU 2726845 C2 20200716; US 10781409 B2 20200922; US 2018216042 A1 20180802; WO 2016029894 A1 20160303;
WO 2016029894 A4 20160512

DOCDB simple family (application)

DE 102014012380 A 20140825; CA 2986159 A 20150820; CN 201580057091 A 20150820; DE 2015000416 W 20150820;
EP 15771501 A 20150820; ES 15771501 T 20150820; PL 15771501 T 20150820; RU 2017105624 A 20150820; US 201515506112 A 20150820