



(51) International Patent Classification:

A61K 9/16 (2006.01) A61K 31/485 (2006.01)

(21) International Application Number:

PCT/EP2016/058981

(22) International Filing Date:

22 April 2016 (22.04.2016)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

15165064.5 24 April 2015 (24.04.2015) EP

(71) Applicant: GRÜNENTHAL GMBH [DE/DE]; Zieglerstraße 6, 52078 Aachen (DE).

(72) Inventors: WENING, Klaus; Görresstraße 10, 50674 Köln (DE). GEISLER, Anja; Litztenhardtstrasse 53, 76135 Karlsruhe (DE). DENKER, Jana; Hemmergasse 32 a + b, 53332 Bornheim (DE). BARNSCHEID, Lutz; Kornblumenweg 30, 41239 Mönchengladbach (DE).

(74) Agent: KUTZENBERGER WOLFF & PARTNER; Theodor-Heuss-Ring 23, 50668 Köln (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: TAMPER-RESISTANT DOSAGE FORM WITH IMMEDIATE RELEASE AND RESISTANCE AGAINST SOLVENT EXTRACTION

(57) Abstract: The invention relates to a tamper-resistant pharmaceutical dosage form comprising a multitude of particles which comprise a pharmacologically active compound, a polyalkylene oxide, and a disintegrant; wherein the pharmacologically active compound is dispersed in a matrix comprising the polyalkylene oxide and the disintegrant; wherein the content of the disintegrant is more than 5.0 wt.-%, based on the total weight of the pharmaceutical dosage form and/or based on the total weight of the particles; wherein the content of the polyalkylene oxide is at least 25 wt.-%, based on the total weight of the pharmaceutical dosage form and/or based on the total weight of the particles; and wherein the dosage form provides under in vitro conditions immediate release of the pharmacologically active compound in accordance with Ph. Eur.

