(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 August 2020 (27.08.2020)

WIPO | PCT

(10) International Publication Number
WO 2020/169989 A1

(51) International Patent Classification:
A61K 9/00 (2006.01) *A61K 47/02* (2006.01)
A61K 9/19 (2006.01) *A61K 47/44* (2017.01)
A61K 9/20 (2006.01) *A61K 31/192* (2006.01)
A61K 9/50 (2006.01)

(21) International Application Number:
PCT/GB2020/050420

(22) International Filing Date:
21 February 2020 (21.02.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/809,287 22 February 2019 (22.02.2019) US
62/809,293 22 February 2019 (22.02.2019) US
62/809,307 22 February 2019 (22.02.2019) US

(71) Applicant: **CATALENT U.K. SWINDON ZYDIS LIMITED** [GB/GB]; Frankland Road, Blagrove, Swindon Wiltshire SN5 8YG (GB).

(72) Inventors: **MCLAUGHLIN, Rosaleen**; 34 Sprats Barn Crescent, Royal Wootton Bassett, Swindon Wiltshire SN4 7JR (GB). **PARKER, Adam**; 30 Elmswood Close, Swindon Wiltshire SN2 7R2 (GB). **HOWES, Simon Andrew Martyn**; 76 Barnum Court, Swindon Wiltshire SN2 2AR (GB). **WHITEHOUSE, Jonathon**; 32 Richardson Road, Swindon Wiltshire SN25 4DS (GB). **WHEADON, Craig**; 5 St. Julians Close, Swindon Wiltshire SN3 4AH (GB).

(74) Agent: **MCGUINN, Callum**; Mewburn Ellis LLP, Aurora Building, Counterslip, Bristol BS1 6BX (GB).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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: MINIMIZING AGGLOMERATION, AERATION, AND PRESERVING THE COATING OF PHARMACEUTICAL COMPOSITIONS COMPRISING IBUPROFEN

(57) Abstract: Provided are pharmaceutical compositions and methods for preparing pharmaceutical compositions comprising Ibuprofen using solventless mixing methods. Excess coating material that is not bound to coated Ibuprofen may be removed by a sieving process. Coating and dosing ratios can also be optimized to minimize the amount of excess unbound coating material. Additionally, the compositions can be formulated to preserve the functional coating of coated Ibuprofen and to minimize aeration of Ibuprofen when mixed into suspension.

WO 2020/169989 A1