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(21) International Application Number: PCT/SE99/02052 (22) International Filing Date: 11 November 1999 (11.11.99) (30) Priority Data: 9803871-4 11 November 1998 (11.11.98) SE PCT/SE99/01463 26 August 1999 (26.08.99) SE Pharmacia AB S-112 87 Stockholm, Sweden (71) Applicant (for all designated States except US): PHARMACIA & UPJOHN AB [SE/SE]; S-112 87 Stockholm (SE). (72) Inventors; and (73) Inventors/Applicants (for US only): GREN, Torkel [SE/SE]; Funbo, Skogsängen, S-755 97 Uppsala (SE). RINGBERG, Anders [SE/SE]; Grenljusbacken 26, S-117 65 Stockholm (SE). WIKBERG, Martin [SE/SE]; Torvmossevägen 14, S-429 32 Kullavik (SE). WALD, Randy, J. [US/US]; 7714 Hillsmoor Lane, Portage, MI 49024 (US). (74) Agents: WIDÉN, Björn et al.; Pharmacia & Upjohn AB, S-112 87 Stockholm (SE).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GE, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: NEW CONTROLLED RELEASE BEAD, A METHOD OF PRODUCING THE SAME AND MULTIPLE UNIT FORMULATION COMPRISING IT (57) Abstract A controlled release bead comprises: (i) a core unit of a substantially water-soluble or water-swellaable inert material; (ii) a first layer on the core unit of a substantially water-insoluble polymer; (iii) a second layer covering the first layer and containing an active ingredient; and (iv) a third layer of polymer on the second layer effective for controlled release of the active ingredient, wherein the first layer is adapted to control water penetration into the core. A method of producing the controlled release bead is also disclosed.		