IPOS

9905953-7

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:
A61K 9/127, 9/72, 47/22

A1

(11) International Publication Number: WO 99/00111

(43) International Publication Date: 7 January 1999 (07.01.99)

(21) International Application Number: PCT/SE98/01090

(22) International Filing Date: 8 June 1998 (08.06.98)

(30) Priority Data:
08/884,419 27 June 1997 (27.06.97) US

(71) Applicant: ASTRA AKTIEBOLAG (publ) [SE/SE]; S–151 85 Södertälje (SE).

(72) Inventors: BYSTRÖM, Katarina; Astra Draco AB, P.O. Box 34, S–221 00 Lund (SE). NILSSON, Per–Gunnar; Astra Draco AB, P.O. Box 34, S–221 00 Lund (SE).

(74) Agent: ASTRA AKTIEBOLAG; Patent Dept., S–151 85 Södertälje (SE).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: PROLIPOSOME POWDERS FOR INHALATION STABILISED BY TOCOPHEROL

(57) Abstract

There is described a proliposome powder, said powder comprising discrete particles each comprising in a single phase (1) a biologically active component, (2) a stabilising proportion of tocopherol, and (3) a lipid or mixture of lipids having a phase transition temperature of below 37 °C. Also described is a process for the preparation of, and the pharmaceutical use of, the powder.