(19) Canadian Intellectual Property Office
An Agency of Industry Canada

Office de la Propriété Intellectuelle du Canada
Un organisme d'Industrie Canada

(11) CA 2 274 910 (13) A1

(43) 25.06.1998

(12)

(21) 2 274 910

(22) 14.11.1997

(51) Int. Cl.[6]: A61K 031/485, A61K 009/70

(85) 14.06.1999

(86) PCT/EP97/06369

(87) WO98/26780

(30) 196 52 188.2 DE 16.12.1996

(71) LTS LOHMANN THERAPIE-SYSTEME GMBH,
Irlicher Strasse 55
D-56567, NEUWIED, XX (DE).

(72) CREMER, Karsten (DE).
LUESSEN, Henrik (DE).

(74) Orange Chari Pillay

(54) PREPARATION MEDICAMENTEUSE PLATE POUR ADMINISTRER OU LIBERER, DANS LA CAVITE BUCCALE, DE LA BUPRENORPHINE OU UNE SUBSTANCE COMPARABLE SUR LE PLAN PHARMACOLOGIQUE ET PROCEDE PERMETTANT DE LA PREPARER

(54) FLAT MEDICAMENT PREPARATION FOR THE APPLICATION AND RELEASE OF BUPRENORPHINE OR A PHARMACOLOGICALLY COMPARABLE SUBSTANCE IN THE BUCCAL CAVITY, AND METHOD OF PRODUCING THE SAME

(57)

The invention concerns a solid medicament preparation which can decompose in aqueous media and has a flat-, foil-, paper- or wafer-type presentation for the application and release of active substances in the buccal cavity. The invention is characterized in that it contains buprenorphine, an active substance which is pharmacologically comparable thereto, or a therapeutically suitable salt of buprenorphine or of the pharmacologically comparable active substance.

OPIC
Office de la propriété intellectuelle du Canada

CIPO
Canadian Intellectual Property Office

(12) (19) (CA) **Demande-Application**

(21) (A1) **2,274,910**
(86) 1997/11/14
(87) 1998/06/25

(72) CREMER, Karsten, DE
(72) LUESSEN, Henrik, DE
(71) LTS LOHMANN THERAPIE-SYSTEME GMBH, DE

(51) Int.Cl.[6] A61K 31/485, A61K 9/70
(30) 1996/12/16 (196 52 188.2) DE

(54) **PREPARATION MEDICAMENTEUSE PLATE POUR ADMINISTRER OU LIBERER, DANS LA CAVITE BUCCALE, DE LA BUPRENORPHINE OU UNE SUBSTANCE COMPARABLE SUR LE PLAN PHARMACOLOGIQUE ET PROCEDE PERMETTANT DE LA PREPARER**

(54) **FLAT MEDICAMENT PREPARATION FOR THE APPLICATION AND RELEASE OF BUPRENORPHINE OR A PHARMACOLOGICALLY COMPARABLE SUBSTANCE IN THE BUCCAL CAVITY, AND METHOD OF PRODUCING THE SAME**

(57) L'invention concerne une préparation médicamenteuse solide, pouvant se décomposer dans des substances aqueuses, à forme galénique plate, de type film, papier ou hostie, servant à administrer et à libérer des principes actif dans la cavité buccale. Cette préparation se caractérise en ce qu'elle contient de la buprénorphine, un principe actifs comparable sur le plan pharmacologique à la buprénorphine ou un sel de buprénorphine ou un sel de la substance comparable sur le plan pharmacologique et approprié sur le plan thérapeutique.

(57) The invention concerns a solid medicament preparation which can decompose in aqueous media and has a flat-, foil-, paper- or wafer-type presentation for the application and release of active substances in the buccal cavity. The invention is characterized in that it contains buprenorphine, an active substance which is pharmacologically comparable thereto, or a therapeutically suitable salt of buprenorphine or of the pharmacologically comparable active substance.

ABSTRACT

A solid pharmaceutical preparation, disintegratable in aqueous media, with a flat, foil-shaped, paper-shaped or wafer-shaped administration form, for application and release of active substances in the oral cavity is characterized by a content of buprenorphine, of an active substance pharmacologically comparable to buprenorphine, or of a therapeutically suitable salt of bruprenorphine or the pharmacologically comparable active substance.

Flat pharmaceutical preparation for application and release of buprenorphine or of a pharmacologically comparable substance in the oral cavity, and process for the production thereof

The present invention relates to a pharmaceutical preparation for application of buprenorphine or pharmacologically comparable active substances in the region of the oral cavity, respectively the oral mucosa. More particularly, it relates to a preparation that is adapted to be flat and in the form of a foil-, paper- or wafer-shaped administration form.

Flat active substance carriers have already been developed and produced for various purposes. DE-OS 27 46 414 can be regarded as fundamental to this administration form, said document describing a foil-type tape of active substance, binder and further active substances, with a direct relation existing, by reason of the homogeneous thickness, density and width, between a unit of length of the tape and the dose of active substance contained therein. The advantages of the continuous dosage property have been recognized also by other applicants and have been described in specific individual variants. Thus, DE-PS 36 30 603 claims a flat-shaped carrier material, for example in the form of a separating layer, with an active substance-containing coating, the latter being peelable, in doses, off the carrier material after having been previously separated into dosage units.

The practicability of the flat format in general and the advantages afforded in the manufacture of the administration form and in the dosing when employing such administration form have been recognized in the prior art.

Moreover, further advantages of such administration forms can be derived such as the fact that, relative to the weight of the administration form, a relatively large surface may be printed on the said administration form, thereby making it possible to increase intake safety, as well as affording the possibility of discrete intake without any liquid being available.

Despite these obvious advantages, such flat administration forms have hitherto hardly been successful. Obviously, the advantage as compared to conventional administration forms does not suffice for many manufacturers of pharmaceutics to develop products of this type comprising the usual active ingredients and to pursue the legal drug approval thereof. Moreover, existing production machinery and existing know-how cannot be made use of for these novel products; this means that the necessity of large investments would arise. Despite the above-described advantages of flat, film- or paper-like administration forms, the therapeutic and/or economic advantage in administration of common active substances which are also perorally applicable is apparently not great enough as compared to conventional tablets to justify the costs of switching over to these administration forms.

One of the substances that are little suitable for peroral administration is buprenorphine, an opiate which has been successfully used in the therapy of pain for years. After peroral application it is hardly bioavalable, i.e. it appears in the blood circulation only to the very small extent of a few percent of the dose taken (McQuay & Moore, in: Bupenorphine, ed. Cowan & Lewis, New York 1995). Presumably, the reason for the lack in bioavailability lies in the extensive decomposition of the substance during the first liver passage following gastrointestinal absorption ("first-pass effect"). A possibility of avoiding the first-

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.