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18 July 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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(54) Title: PREPARATION OF AQUEOUS CLEAR SOLUTION DOSAGE FORMS WITH BILE ACIDS

(57) Abstract: Compositions for pharmaceutical and other uses comprising clear aqueous solutions of bile acids which do not form any detectable precipitates over selected ranges of pH values of the aqueous solution and methods of making such solutions. The compositions of the invention comprise water; a bile acid in the form of a bile acid, bile acid salt, or a bile acid conjugated with an amine by an amide linkage; and either or both an aqueous soluble starch conversion product and a aqueous soluble non-starch polysaccharide. The composition remains in solution without forming a precipitate over a range of pH values and, according to one embodiment, remains in solution for all pH values obtainable in an aqueous system. The composition, according to some embodiments, may further contain a pharmaceutical compound in a pharmaceutically effective amount. Non-limiting examples of pharmaceutical compounds include insulin, heparin, bismuth compounds, amantadine and rimantadine.

INTERNATIONAL SEARCH REPORT

Inter. ional Application No
PCT/US 01/03745

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K47/36 A61K9/08 A61K31/575 A61P1/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 04875 A (YOO SEO HONG) 3 February 2000 (2000-02-03) page 2, line 6 -page 4, line 20 page 11, line 7 -page 15, line 1 page 18 -page 20; examples 3,4 claims 1-33 --- -/--	15-27, 37-81

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 April 2002	25. 04. 2002

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Muller, S

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Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; NAKAZAWA, SHINZO ET AL: "Oral aqueous formulations containing bile acids and dextrins" retrieved from STN Database accession no. 108:26970 XP002148326 abstract & JP 62 153220 A (TOKYO TANABE CO., LTD., JAPAN) 8 July 1987 (1987-07-08) ---	23-27
X	US 4 999 287 A (ALLEN MICHAEL P ET AL) 12 March 1991 (1991-03-12) column 10, line 31 - line 55; example ---	81
A	EP 0 092 073 A (ISTITUTO CHEMIOTERAPICO) 26 October 1983 (1983-10-26) page 6, line 21 - line 28 ---	23-25,27
A	EP 0 100 983 A (PROTER SPA) 22 February 1984 (1984-02-22) page 11, line 16 - line 28 ---	23-25,27
A	US 5 534 505 A (WIDAUER JOSEF O) 9 July 1996 (1996-07-09) column 1, line 59 - line 67 column 2, line 63 -column 3, line 17 ---	1-87
A	DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; KAWAGISHI, JUICHI: "Inclusion compds of cholic acids and their injections" retrieved from STN Database accession no. 94:103689 XP002148325 abstract & JP 55 022616 A (TOKYO TANABE CO., LTD., JAPAN) 18 February 1980 (1980-02-18) ---	1-87
A	CAPRIO DE J ET AL: "BILE ACID AND STEROL SOLUBILIZATION IN 2-HYDROXYPROPYL-BETA-CYCLODEXTRIN" JOURNAL OF LIPID RESEARCH, BETHESDA, MD, US, vol. 33, no. 3, 1 March 1992 (1992-03-01), pages 441-443, XP000573769 ISSN: 0022-2275 the whole document ---	1-87
A	"Martindale, 32th edition" , PHARMACEUTICAL PRESS , LONDON XP002174202 page 1553, column 2 -column 3 -----	1-87

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/03745

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-47 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the composition.

2. [ ] Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. [X] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[X] No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-47,81-87 partially

   A composition comprising: (1) a bile acid, its derivative, its salt, or its conjugate with an amine, (2) water, (3) an aqueous soluble starch conversion product.

2. Claims: 1-47,81-87 partially, 48-80 entirely

   A composition comprising: (1) a bile acid, its derivative, its salt, or its conjugate with an amine, (2) water, and (3) an aqueous soluble non-starch polysaccharide.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 01/03745

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