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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.

(54) Title: PURE 1,2-BENZISOXAZOLE-3-METHANE-SULFONIC ACID SODIUM SALT AND PURIFICATION PROCESS

(57) Abstract: The present invention provides chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid, the sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay, or chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay, and processes for preparing the same via purification. The present invention also provides monohydrate form of the chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid, the sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay, or chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay. Furthermore, the present invention provides anhydrous form of the chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid, the sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay, or chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay. One of the embodiments of the present invention is directed to a process for preparing zonisamide using the chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid, the sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay, or chemically pure sodium salt of 1,2-benzisoxazole-3-methane-sulfonic acid of high assay.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
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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, BEILSTEIN Data, 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 2005/030738 A (SUVEN LIFE SCIENCES LTD [IN]; VEERA REDDY ARYA [IN]; RAJENDIRAN CHINNA) 7 April 2005 (2005-04-07) pages 14-15; example iV	1-28, 36-52, 54,68-89
X	WO 2004/020419 A (TEVA PHARMA [IL]; TEVA PHARMA [US]; NIDAM TAMAR [IL]; MENDELOVICI MARI) 11 March 2004 (2004-03-11) cited in the application page 26	29-34,89
X	WO 03/072552 A1 (TEVA PHARMA [IL]; TEVA PHARMA [US]; MENDELOVICI MARIOARA [IL]; GERSHON) 4 September 2003 (2003-09-04) cited in the application pages 9-10; example 1	35,53, 55-67,89

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Information on patent family members

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Patent document cited in search report	A	Publication date	AU	Patent family member(s)	Publication date
WO 2005030738	A	07-04-2005	AU	2003304484 A1	14-04-2005
WO 2004020419	A	11-03-2004	AU	2002354044 A1	19-03-2004
WO 03072552	A1	04-09-2003	AU	2002259114 A1	09-09-2003
			AU	2003219889 A1	09-09-2003
			CA	2475598 A1	04-09-2003
			CA	2476723 A1	04-09-2003
			CN	1636002 A	06-07-2005
			EP	1482939 A1	08-12-2004
			EP	1472236 A1	03-11-2004
			HR	20040766 A2	28-02-2005
			JP	2005524656 T	18-08-2005
			JP	2005526049 T	02-09-2005
			MX	PA04008109 A	26-11-2004
			WO	03072104 A1	04-09-2003