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(54) Title: AQUEOUS FORMULATIONS OF ACETAMINOPHEN FOR INJECTION

(57) Abstract: The invention relates to novel stable aqueous formulations of acetaminophen for injection as well as processes for preparing and using the same.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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, EMBASE, 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	US 6 028 222 A (DIETLIN FRANCOIS [FR] ET AL) 22 February 2000 (2000-02-22) cited in the application column 1, lines 9-12 column 2, lines 31-35, 54-57, 65-67 column 3, lines 24-30 column 6, lines 14-41	1-6
X	----- "PERFALGAN RTM CONSUMER MEDICINE INFORMATION" MEDICINE LEAFLET, [Online] 2004, XP002522560 Retrieved from the Internet: URL: http://www.bmsa.com.au/documents/Perfalgan_cmi.pdf the whole document ----- -/--	1-6



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2006/084703 A1 (NGUYEN-XUAN THO [CH]) 20 April 2006 (2006-04-20) page 1, paragraph 12 page 2 - page 3; example 1; table 1 -----	1-6
A	US 6 992 218 B2 (DIETLIN FRANCOIS [FR] ET AL) 31 January 2006 (2006-01-31) cited in the application column 3, lines 54-65 column 5, lines 26-34, 43-57 column 6, lines 29-45 -----	1-6
P,X	WO 2008/007150 A (UNILEVER PLC [GB]) 17 January 2008 (2008-01-17) page 3, lines 24-26 page 19, lines 5,6 page 23 - page 25; examples 11-13 -----	1,3,5,6
E	WO 2008/135601 A (DOCPHARMA NV SA [BE]; AL-DANDACHI ATASSI KHALED [BE]) 13 November 2008 (2008-11-13) page 2, lines 14-19 page 3, lines 4-8 page 5, lines 11-33 page 6 - page 8; example 1 -----	1,3-6

INTERNATIONAL SEARCH REPORT

 International application No
 PCT/IB2008/003217

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6028222	A	22-02-2000	AP 957 A	12-04-2001
			AT 241972 T	15-06-2003
			AU 742576 B2	10-01-2002
			AU 3945197 A	25-02-1998
			BR 9702362 A	28-12-1999
			CA 2233924 A1	12-02-1998
			CN 1204960 A	13-01-1999
			CZ 9801048 A3	16-09-1998
			DE 69722580 D1	10-07-2003
			DE 69722580 T2	29-04-2004
			DK 858329 T3	29-09-2003
			EP 0858329 A1	19-08-1998
			ES 2201316 T3	16-03-2004
			FR 2751875 A1	06-02-1998
			WO 9805314 A1	12-02-1998
			HU 9901893 A2	28-09-1999
			JP 11514013 T	30-11-1999
			NZ 330136 A	27-03-2000
			OA 10678 A	20-11-2002
			PL 326069 A1	17-08-1998
			PT 858329 E	30-09-2003
			RU 2192249 C2	10-11-2002
US 2006084703	A1	20-04-2006	AU 2004212269 A1	26-08-2004
			CA 2517491 A1	26-08-2004
			WO 2004071502 A1	26-08-2004
			CN 1750818 A	22-03-2006
			EP 1592414 A1	09-11-2005
			FR 2851164 A1	20-08-2004
			JP 2006517544 T	27-07-2006
			MA 27748 A1	01-02-2006
US 6992218	B2	31-01-2006	AP 1880 A	31-08-2008
			AU 6612001 A	17-12-2001
			CA 2415403 A1	13-12-2001
			CN 1556694 A	22-12-2004
			CZ 20030013 A3	12-11-2003
			FR 2809619 A1	07-12-2001
			WO 0193830 A1	13-12-2001
			MA 26926 A1	20-12-2004
			MX PA03000001 A	19-03-2004
			NZ 523458 A	26-08-2005
			TW 237570 B	11-08-2005
			US 2004054012 A1	18-03-2004
			YU 103 A	25-05-2006
WO 2008007150	A	17-01-2008	WO 2008007151 A2	17-01-2008
			WO 2008007152 A2	17-01-2008
WO 2008135601	A	13-11-2008	EP 1992334 A1	19-11-2008