



- (51) **International Patent Classification:**
A61K 47/10 (2006.01)
- (21) **International Application Number:**
PCT/IB2015/055285
- (22) **International Filing Date:**
13 July 2015 (13.07.2015)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
3454/CHE/2014 11 July 2014 (11.07.2014) IN
5215/CHE/2014 17 October 2014 (17.10.2014) IN
- (71) **Applicant:** **DR. REDDY'S LABORATORIES LIMITED** [IN/IN]; 8-2-337, Road No. 3, Banjara Hills, Telangana, India., Hyderabad 500034 (IN).
- (72) **Inventors:** **SHAIK, Riyaz Ahmed**; Plot No-180, Flat No: 34, Sai Dinesh Apartments; Kalyan Nagar; Venture-3; Telangana, India., Hyderabad 500018 (IN). **SAHA, Ananya**; Dayal complex; Flat No : 201; Radha Nagar Road, Burdwan., Asansol 713325 (IN). **GARIKIPATI, Svb Janardhan**; A-203, Sita Paradise Apartments, Ramnagar, Andhra Pradesh., Visakhapatnam 530002 (IN). **CHAURASIYA, Akash**; I, Shekhar enclave, Paschimpuri, Skandra, India., Agra (IN). **PATEL, Bhavesh Vallabhbhai**; Dr. Reddy's Laboratories Limited; IPDO; Bachupally, India., Hyderabad (IN). **BHAGWATWAR, Harshal**; B-301, Fortune Towers, Madhapur., Hyderabad (IN).

- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

- (88) **Date of publication of the international search report:**
17 March 2016



WO 2016/005962 A3

(54) **Title:** STABLE LIQUID FORMULATIONS OF CYCLOPHOSPHAMIDE AND PROCESSES

(57) **Abstract:** The present invention relates to stable liquid pharmaceutical formulations of cyclophosphamide. The invention further relates to stable liquid formulations of cyclophosphamide prepared by a process comprising a step of reducing the moisture content from cyclophosphamide or liquid compositions of cyclophosphamide or both. The invention further relate to method of using such stable liquid formulations of cyclophosphamide for parenteral administration either as ready-to-use or ready-to-dilute for treating various cancer disorders.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2015/055285

A. CLASSIFICATION OF SUBJECT MATTER
A61K47/10 Version=2015.01

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)

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 practicable, search terms used)

patseer, IPO international database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US4879286 A1 (LYPHOMED INC [US]) 7 November, 1989 abstract and claims	1-33
Y	US5036060 A1 (FUJISAWA USA INC [US]) 30 July, 1991 abstract and claims	1-33
Y	WO2014068585 A1 (LEIUTIS PHARMACEUTICALS PVT LTD [IN]) 8 May, 2014 page no 7 and Para 2	1-33
Y	CA2132936 A1 (SQUIBB BRISTOL MYERS CO [US]) 29 September, 1993 Para 003	1-33

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 23-12-2015	Date of mailing of the international search report 23-12-2015
---	--

Name and mailing address of the ISA/ Indian Patent Office Plot No.32, Sector 14, Dwarka, New Delhi-110075 Facsimile No.	Authorized officer Mukesh Kumar Jangid Telephone No. +91-1125300200
--	---

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/IB2015/055285

Citation	Pub.Date	Family	Pub.Date
CA 2132936 A1	30-05-1995	EP 0645145 A1	29-03-1995
		US 5504102 A1	02-04-1995