

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2018/001433

## A. CLASSIFICATION OF SUBJECT MATTER

*B65D 1/08(2006.01)i, B65D 47/18(2006.01)i, B65D 1/32(2006.01)i*

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)

B65D 1/08; B65D 47/20; B05B 11/04; A45D 34/00; B65D 47/18; B65D 35/50; B65D 47/00; A61J 1/05; A61K 9/08; B65D 1/32

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean Utility models and applications for Utility models: IPC as above  
Japanese Utility models and applications for Utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) &amp; Keywords: tube, liquid, drop, droplet, discharge, control, valve, pressurization, assembling

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2005-145465 A (FANCL CORP.) 09 June 2005 See paragraphs [0015]-[0017], [0019], [0023]-[0025] and figures 1-6.	1-5
Y	KR 10-1554189 B1 (YONWOO CO., LTD.) 21 September 2015 See claim 1 and figures 1-2.	1-5
A	KR 10-2016-0049353 A (IPACK CO., LTD.) 09 May 2016 See paragraphs [0025]-[0030] and figures 1-4.	1-5
A	KR 10-0919520 B1 (LABORATOIRES THEA) 28 September 2009 See claims 1-3 and figure 2.	1-5
A	JP 2005-160972 A (ROHTO PHARMACEUTICAL CO., LTD.) 23 June 2005 See paragraphs [0018]-[0019] and figure 1.	1-5

 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

15 JUNE 2018 (15.06.2018)

Date of mailing of the international search report

18 JUNE 2018 (18.06.2018)

Name and mailing address of the ISA/KR


 Korean Intellectual Property Office  
 Government Complex Daejeon Building 4, 189, Cheongsa-ro, Seo-gu,  
 Daejeon, 35208, Republic of Korea  
 Facsimile No. +82-42-481-8578

Authorized officer

Telephone No.

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.

**PCT/KR2018/001433**

Patent document cited in search report	Publication date	Patent family member	Publication date
JP 2005-145465 A	09/06/2005	NONE	
KR 10-1554189 B1	21/09/2015	CN 105873470 A EP 3081111 A1 JP 2017-504379 A JP 6170251 B2 KR 10-2015-0067412 A US 2016-0272381 A1 WO 2015-088120 A1	17/08/2016 19/10/2016 09/02/2017 26/07/2017 18/06/2015 22/09/2016 18/06/2015
KR 10-2016-0049353 A	09/05/2016	JP 2016-084180 A KR 10-1636820 B1	19/05/2016 07/07/2016
KR 10-0919520 B1	28/09/2009	AR 051064 A1 BR P10512387 A CA 2572048 A1 CA 2572048 C CN 1972755 A EP 1765513 A1 FR 2872137 A1 FR 2872137 B1 HK 1104253 A1 JP 2008-503410 A JP 2012-210979 A JP 5080972 B2 JP 5307916 B2 KR 10-2007-0027738 A MA 28671 B1 MX PA06014657 A MY 164320 A NO 20070474 A RU 2007101567 A RU 2385774 C2 TN SN06415 A1 US 2008-0067194 A1 US 7971755 B2 WO 2006-000897 A1 ZA 200700248 B	20/12/2006 11/03/2008 05/01/2006 04/01/2011 30/05/2007 28/03/2007 30/12/2005 23/01/2009 25/09/2009 07/02/2008 01/11/2012 21/11/2012 02/10/2013 09/03/2007 01/06/2007 12/02/2007 15/12/2017 26/03/2007 27/07/2008 10/04/2010 22/02/2008 20/03/2008 05/07/2011 05/01/2006 28/05/2008
JP 2005-160972 A	23/06/2005	NONE	