

Title (en)

FILLING SYSTEM COMPRISING A VIAL TO BE FILLED WITH A LIQUID AND A FILLING MODULE

Title (de)

FÜLLSYSTEM MIT EINER PHIOLE ZUM BEFÜLLEN MIT EINER FLÜSSIGKEIT UND FÜLLMODUL

Title (fr)

SYSTÈME DE REMPLISSAGE COMPORTANT UN FLACON À REMPLIR AVEC UN LIQUIDE ET UN MODULE DE REMPLISSAGE

Publication

EP 3359299 A1 20180815 (FR)

Application

EP 16778289 A 20160930

Priority

- FR 1559442 A 20151005
- EP 2016073477 W 20160930

Abstract (en)

[origin: WO2017060174A1] The invention relates to a filling system (100) which comprises: a vial (102) having a hollow shell (202) with a base (204); and a filling module (104) comprising: a vessel (210a-b), a plate (256) movable between a high position and a low position, a pump (220), a compression system (250) configured to compress the pump (220) when the plate (256) descends, a set of pipes (214, 216, 224) between the vessel (210a-b) and the plate (256) and the pump (220), and a fluid connection assembly (218a-b, 206a-b) between the plate (256) and the base (204).

IPC 8 full level

B05B 11/00 (2006.01); **A45D 34/02** (2006.01)

CPC (source: EP KR US)

A45D 34/02 (2013.01 - EP KR US); **B05B 11/0056** (2013.01 - EP KR US); **B05B 11/0044** (2018.07 - EP KR US); **B05B 11/1001** (2023.01 - US); **B67D 7/0294** (2013.01 - US)

Citation (search report)

See references of WO 2017060174A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 3041943 A1 20170407; **FR 3041943 B1 20190419**; CN 108348938 A 20180731; CN 108348938 B 20201106; EP 3359299 A1 20180815; EP 3359299 B1 20191204; ES 2774479 T3 20200721; JP 2018532663 A 20181108; JP 6776357 B2 20201028; KR 102562399 B1 20230801; KR 20180092937 A 20180820; US 10894264 B2 20210119; US 2019047003 A1 20190214; WO 2017060174 A1 20170413

DOCDB simple family (application)

FR 1559442 A 20151005; CN 201680056253 A 20160930; EP 16778289 A 20160930; EP 2016073477 W 20160930; ES 16778289 T 20160930; JP 2018536339 A 20160930; KR 20187012911 A 20160930; US 201615758784 A 20160930