

Title (en)

Pump to spray a product in different positions and container therefor

Title (de)

Pumpe zum Ausbringen eines Produkts in verschiedenen Sprühpositionen und entsprechender Behälter

Title (fr)

Pompe permettant de distribuer un produit dans différentes position et récipient pour celle-lui

Publication

EP 1616632 A3 20110216 (FR)

Application

EP 05023001 A 20040408

Priority

- EP 04290938 A 20040408
- FR 0304591 A 20030411

Abstract (en)

[origin: EP1466669A1] The pump has a pump body with an opening (24) to communicate a pumping chamber with an interior of a receptacle. A lip (40) is fixed on the body to prevent communication between the chamber and receptacle, after the displacement of mobile assembly in a product distribution direction from a rest position. Another lip (41) is placed above the former lip to prevent the communication across an interior of the body and the opening. An independent claim is also included for a receptacle equipped with a pump.

IPC 8 full level

B05B 11/00 (2006.01); **F04B 9/14** (2006.01)

CPC (source: EP US)

B05B 11/00442 (2018.07 - EP); **B05B 11/0059** (2013.01 - EP US); **B05B 11/1016** (2023.01 - EP); **B05B 11/0039** (2018.07 - US); **B05B 11/0044** (2018.07 - EP)

Citation (search report)

- [X] US 4174790 A 19791120 - GOTO TAKAYUKI [JP], et al
- [AD] US 5622286 A 19970422 - RENAULT PHILIPPE [FR]
- [AD] FR 2528122 A1 19831209 - VALOIS SA [FR]

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1466669 A1 20041013; EP 1466669 B1 20060201; AT E316826 T1 20060215; AT E538877 T1 20120115; BR PI0401658 A 20050118; BR PI0401658 B1 20161227; CN 1302968 C 20070307; CN 1535901 A 20041013; DE 602004000369 D1 20060413; DE 602004000369 T2 20061012; EP 1616632 A2 20060118; EP 1616632 A3 20110216; EP 1616632 B1 201111228; ES 2257726 T3 20060801; ES 2379176 T3 20120423; FR 2853697 A1 20041015; FR 2853697 B1 20060728; JP 2004316652 A 20041111; JP 2008133828 A 20080612; JP 4106352 B2 20080625; JP 5095357 B2 20121212

DOCDB simple family (application)

EP 04290938 A 20040408; AT 04290938 T 20040408; AT 05023001 T 20040408; BR PI0401658 A 20040408; CN 200410030865 A 20040407; DE 602004000369 T 20040408; EP 05023001 A 20040408; ES 04290938 T 20040408; ES 05023001 T 20040408; FR 0304591 A 20030411; JP 2004116457 A 20040412; JP 2007300264 A 20071120