

Title (en)

PACKAGING AND DISPENSING DEVICE INCLUDING A MINIATURE ELECTRIC PUMP

Title (de)

PACKUNGS- UND SPENDERVORRICHTUNG MIT EINER MINI-ELEKTROPUMPE

Title (fr)

DISPOSITIF DE CONDITIONNEMENT ET DE DISTRIBUTION A POMPE ELECTRIQUE MINIATURE

Publication

EP 2475465 A1 20120718 (FR)

Application

EP 10760626 A 20100906

Priority

- FR 0956059 A 20090907
- EP 2010063027 W 20100906

Abstract (en)

[origin: WO2011026968A1] The invention relates to a packaging and dispensing device (10) for a liquid or semi-liquid product, comprising: a container (12) including a lining element (18, 20) solidly connected thereto; an outlet member (22) borne by the lining element (18, 20); and at least one pump (24) connected to (i) at least one inlet duct (26) communicating with an outlet hole (16) in the container, in turn communicating with the interior of the container (12), and (ii) at least one outlet duct (28) supplying the aforementioned outlet member (22). According to the invention, a means (30) for controlling the pump (24) can be activated from an external surface (32) of the lining element (18, 20) in order to control the operation of the pump (24) and the conveying of the product from the container (12) to the outlet member (22). The invention is characterised in that the pump (24) is a miniature piezoelectric pump which is powered by an electrical power supply means (34) in the lining element (18, 20) and which is controlled by the control means (30).

IPC 8 full level

B05B 9/08 (2006.01); **B05B 17/06** (2006.01)

CPC (source: EP US)

B05B 9/0861 (2013.01 - EP US); **B05B 17/0607** (2013.01 - US); **F04B 13/00** (2013.01 - EP); **F04B 17/03** (2013.01 - EP); **F04B 23/028** (2013.01 - EP); **F04B 43/046** (2013.01 - EP); **F04B 53/16** (2013.01 - EP)

Citation (search report)

See references of WO 2011026968A1

Citation (examination)

- WO 0207897 A1 20020131 - PROCTER & GAMBLE [US]
- WO 2004094067 A2 20041104 - JOHNSON & SON INC S C [US], et al
- JP S556057 U 19800116
- US 7032841 B1 20060425 - SWISHER STEVEN L [US]

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2011026968 A1 20110310; BR 112012005094 A2 20160503; BR 112012005094 B1 20201027; CN 102574142 A 20120711; EP 2475465 A1 20120718; FR 2949763 A1 20110311; FR 2949763 B1 20111125; JP 2013503789 A 20130204; US 2012160874 A1 20120628

DOCDB simple family (application)

EP 2010063027 W 20100906; BR 112012005094 A 20100906; CN 201080046931 A 20100906; EP 10760626 A 20100906; FR 0956059 A 20090907; JP 2012527344 A 20100906; US 201013393966 A 20100906