

Title (en)
AEROSOL VALVE WITH DEFINED FLOW PATHS

Title (de)
AEROSOLVENTIL MIT DEFINIERTEN STRÖMUNGSWEGEN

Title (fr)
SOUPAPE D'AÉROSOL AYANT DES TRAJETS D'ÉCOULEMENTS DEFINIS

Publication
EP 2969845 A4 20161116 (EN)

Application
EP 14767606 A 20140314

Priority
• US 201361798402 P 20130315
• US 2014027630 W 20140314

Abstract (en)
[origin: WO2014152696A1] An aerosol valve having a valve stem, valve stem housing, compression spring, and a hard stop formed by the interaction of valve stem and valve stem housing is provided. The hard stop prevents the compression spring from becoming fully compressed, or coil-bound, when the valve stem is pressed to dispense a product formulation from the container, thereby creating open spaces between coils of the compression spring and providing a defined flow path for the product formulation. The aerosol valve increases mixing and turbulence of the product formulation that reduce agglomerations of solids that might otherwise block the flow paths. The additional defined flow path also directs more of the product to the valve stem aperture, further increasing dispensing of the product formulation from the container. A method of using the aerosol valve is provided.

IPC 8 full level
B65D 83/20 (2006.01); **B65D 83/46** (2006.01)

CPC (source: EP US)
B65D 83/32 (2013.01 - US); **B65D 83/34** (2013.01 - EP US); **B65D 83/46** (2013.01 - EP US); **B65D 83/48** (2013.01 - EP US);
B05B 7/0483 (2013.01 - EP US)

Citation (search report)
• [X] US 5605258 A 19970225 - ABPLANALP ROBERT H [US]
• [X] US 2006219740 A1 20061005 - BAYER CHRISTIAN [US]
• [X] WO 2009039565 A1 20090402 - REYNOLDS MAX [AU]
• [X] EP 1048590 A1 20001102 - OREAL [FR]
• [X] US 3674180 A 19720704 - MORANE BRUNO P
• See references of WO 2014152696A1

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

DOCDB simple family (publication)
WO 2014152696 A1 20140925; AU 2014239287 A1 20150903; AU 2014239287 B2 20180315; BR 112015023731 A2 20170718;
CA 2905990 A1 20140925; CN 105263820 A 20160120; CN 105263820 B 20170517; EP 2969845 A1 20160120; EP 2969845 A4 20161116;
EP 2969845 B1 20200805; ES 2829501 T3 20210601; JP 2016517374 A 20160616; JP 6309611 B2 20180411; MX 2015010781 A 20160512;
US 2016009481 A1 20160114; ZA 201506144 B 20190424

DOCDB simple family (application)
US 2014027630 W 20140314; AU 2014239287 A 20140314; BR 112015023731 A 20140314; CA 2905990 A 20140314;
CN 201480014970 A 20140314; EP 14767606 A 20140314; ES 14767606 T 20140314; JP 2016502498 A 20140314;
MX 2015010781 A 20140314; US 201414777128 A 20140314; ZA 201506144 A 20150824