

Title (en)
ONE-WAY VALVE FOR DELIVERING A FREE-FLOWING MATERIAL

Title (de)
EINWEGVENTIL ZUR ABGABE EINES FLIESSFÄHIGEN MATERIALS

Title (fr)
VALVE UNIDIRECTIONNELLE PERMETTANT DE CEDER UNE MATIERE APTE A L'ECOULEMENT

Publication
EP 1499538 A2 20050126 (DE)

Application
EP 03746804 A 20030404

Priority
• DE 0301108 W 20030404
• DE 10217655 A 20020419

Abstract (en)
[origin: US8322578B2] A one-way valve for the recontamination-protected repeated discharge of a flowable material from a container of a preferably reducible volume contains a valve seat which consists of a rigid plastic material and which is arranged in the container neck and comprises a base body which rests on the inner wall of the container neck and contains at least one through hole, and a projection which extends in axial direction of the container neck towards the exit opening. The valve seat has arranged thereabove an elastic seal which comprises an annular section covering the at least one through hole, and a sleeve-like section which surrounds the projection at a radial distance with the exception of its end section which in the closed state of the one-way valve rests in the exit opening on the end section of the projection. A sterilization element of silver or of another metal having an oligodynamic action may be arranged in the intermediate space between the projection of the valve seat and the elastic seal. The application of pressure to the contents of the container has the effect that the annular section of the seal releases the at least one through hole of the valve seat, the end section of the sleeve-like part of the seal exiting from the exit opening and releasing the same. The seal will then return into the initial state. The contents of the container is safely sealed against the ingress of contaminants.

IPC 1-7
B65D 47/20

IPC 8 full level
B65D 1/00 (2006.01); **B65D 47/20** (2006.01); **B65D 81/24** (2006.01)

CPC (source: EP US)
B65D 47/2081 (2013.01 - EP US); **B65D 81/24** (2013.01 - EP US)

Cited by
DE102009048476B3; CN102030138A; EP2308768A1; EP2420455A1; EP2420456A1

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 PT RO SE SI SK TR

DOCDB simple family (publication)
WO 03089325 A2 20031030; WO 03089325 A3 20040212; AT E381498 T1 20080115; AU 2003232591 A1 20031103; BR 0309423 A 20050201; BR 0309423 B1 20120807; CN 100379653 C 20080409; CN 1671602 A 20050921; DE 10217655 A1 20031106; DE 10217655 B4 20040527; DE 50308847 D1 20080131; DK 1499538 T3 20080428; EP 1499538 A2 20050126; EP 1499538 B1 20071219; ES 2298541 T3 20080516; MX PA04010304 A 20050307; PT 1499538 E 20080318; RU 2004133809 A 20050420; RU 2326795 C2 20080620; US 2005224520 A1 20051013; US 8322578 B2 20121204

DOCDB simple family (application)
DE 0301108 W 20030404; AT 03746804 T 20030404; AU 2003232591 A 20030404; BR 0309423 A 20030404; CN 03808745 A 20030404; DE 10217655 A 20020419; DE 50308847 T 20030404; DK 03746804 T 20030404; EP 03746804 A 20030404; ES 03746804 T 20030404; MX PA04010304 A 20030404; PT 03746804 T 20030404; RU 2004133809 A 20030404; US 51192805 A 20050428