

Title (en)

Container and valve assembly for storing and dispensing substances, and related method

Title (de)

Behälter und Ventilanordnung zum Lagern und Abgeben von Substanzen und verwandtes Verfahren.

Title (fr)

Ensemble de récipient et valve pour stocker et distribuer des substances ainsi que le procédé associé

Publication

EP 2289813 A1 20110302 (EN)

Application

EP 10188052 A 20030813

Priority

- EP 03755736 A 20030813
- US 40339602 P 20020813
- US 44292403 P 20030127

Abstract (en)

A container (100) including a nozzle (102) and body (104) depending therefrom. The body (104) is preferably tubular and defines an interior which retains a product to be dispensed. A cap (106) engages the nozzle (102) to prevent inadvertent release of the product. In order to dispense the product, the cap (106) is removed and pressure is applied to the body (104) and the nozzle (102) allows release of the product. The nozzle releases the product without exposing the remaining product to the external atmosphere, thus the sterility of the interior of the body is maintained and the shelf life of the product is increased. The nozzle (102) includes an inner body (114), coupled to the tubular body, surrounded by a flexible outer cover (112). A seam (125) between the inner body (114) and flexible outer cover (112) forms a one-way release valve wherein a portion of the seam remains closed during dispensing the product.

IPC 8 full level

A45D 40/26 (2006.01); **B65D 25/40** (2006.01); **B65D 35/06** (2006.01); **B65D 35/08** (2006.01); **B65D 35/38** (2006.01); **B65D 35/44** (2006.01);
B65D 35/50 (2006.01); **B65D 37/00** (2006.01); **B65D 47/20** (2006.01)

CPC (source: EP)

A45D 40/26 (2013.01); **B65D 35/06** (2013.01); **B65D 35/08** (2013.01); **B65D 35/38** (2013.01); **B65D 47/205** (2013.01)

Citation (applicant)

- US 40339602 P 20020813
- US 60442924 A
- US RE37047 E 20010206 - PY DANIEL [FR]
- US 6032101 A 20000229 - FREEDMAN ROBERT [US], et al
- US 5944702 A 19990831 - PY DANIEL [US]
- US 5746728 A 19980505 - PY DANIEL [FR]
- US 2002074362 A1 20020620 - PY DANIEL [US], et al
- US 2002017294 A1 20020214 - PY DANIEL [US]
- US 6351924 B1 20020305 - GUSTAFSSON PER [SE], et al
- US 6372276 B1 20020416 - LINDQUIST ANDERS [SE]
- US 6355216 B1 20020312 - KRISTIANSSON ANDERS [SE], et al
- US 27257703 A
- US 174501 A 20011023

Citation (search report)

- [A] WO 0029192 A2 20000525 - WATERFALL COMPANY [US]
- [A] US 6386395 B1 20020514 - LUNGHETTI GIANNI [IT]
- [A] US 4099651 A 19780711 - VON WINCKELMANN EMIL H
- [A] EP 0172711 A2 19860226 - BOOTS CO PLC [GB]
- [AD] US 2002074362 A1 20020620 - PY DANIEL [US], et al

Cited by

CN106466045A; EP3263475A1

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)

EP 2289813 A1 20110302; EP 2289813 B1 20150218; CN 100386247 C 20080507; CN 101274683 A 20081001; CN 101274683 B 20111123;
CN 101274685 A 20081001; CN 101274685 B 20110907; CN 1705589 A 20051207; EP 2949591 A1 20151202; EP 2949591 B1 20180221;
ES 2355487 T3 20110328

DOCDB simple family (application)

EP 10188052 A 20030813; CN 03821754 A 20030813; CN 200810083760 A 20030813; CN 200810083761 A 20030813;
EP 15000463 A 20030813; ES 03755736 T 20030813