Title (en)

CLOSURE CAP

Publication

EP 0457245 A3 19920520 (DE)

Application

EP 91107730 A 19910513

Priority

DE 4015480 A 19900514

Abstract (en)

[origin: US5240149A] The invention relates to a closure cap (5) having a dispensing opening (6) for containers with flexible walls, which can be pressed together by hand for the dispensing of spray product which is in connection with the dispensing opening (6) by means of a dip tube (7). Upstream of the dispensing opening (6) is an outlet valve (8), which is open when there is positive pressure in the container, whereas an air-admitting opening (9) is assigned an air-admitting valve (10), which is open when there is negative pressure in the container. By virtue of the outlet valve (8) upstream of the dispensing opening (6), the readmission of air to the container and consequently the risk of sucking in through the dispensing opening (6) substances contaminating the container content is prevented. Maintaining the quality of the spray product in the container is ensured by virtue of the air-admitting opening (9), separate from the dispensing opening (6), and the air-admitting valve (10), which opens only when there is negative pressure in the container.

IPC 1-7

B65D 47/20

IPC 8 full level

B05B 11/04 (2006.01); **B65D 47/20** (2006.01)

CPC (source: EP US)

B05B 11/043 (2013.01 - EP US); **B65D 47/2081** (2013.01 - EP US); Y10T 137/2544 (2015.04 - EP US); Y10T 137/7843 (2015.04 - EP US)

Citation (search report)

- [X] US 4147306 A 19790403 - BENNETT ROBERT S
- [X] US 4156505 A 19790529 - BENNETT ROBERT S [US]
- [A] US 4093124 A 19780606 - MORANE BRUNO, et al
- [A] US 3984035 A 19761005 - CLARKE ROBERT E

Cited by

DE19916643A1; DE4403082C1; US5447258A; EP3090956A1; WO2014122048A1; US9694375B2; US10029268B2

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0457245 A2 19911121; **EP 0457245 A3 19920520**; **EP 0457245 B1 19940928**; AT E112183 T1 19941015; DE 4015480 A1 19911121; DE 4015480 C2 19930812; DE 59103078 D1 19941103; ES 2060240 T3 19941116; US 5240149 A 19930831

DOCDB simple family (application)

EP 91107730 A 19910513; AT 91107730 T 19910513; DE 4015480 A 19900514; DE 59103078 T 19910513; ES 91107730 T 19910513; US 69883891 A 19910510