Title (en)

CLOSURE DEVICE, PARTICULARLY FOR BOTTLES OF LYOPHILIZED PRODUCTS, AND PROCESS FOR CLOSING A BOTTLE OF LYOPHILIZED PRODUCTS

Title (de)

VERSCHLUSSVORRICHTUNG, INSBESONDERE FÜR FLASCHEN MIT LYOPHILISIERTEN PRODUKTEN UND VERFAHREN ZUM VERSCHLIESSEN EINER FLASCHE MIT LYOPHILISIERTEN PRODUKTEN

Title (fr

DÍSPOSITIF DE FERMETURE, EN PARTICULIER POUR BOUTEILLES DE PRODUITS LYOPHILISÉS, ET PROCÉDÉ DE FERMETURE D'UNE BOUTEILLE DE PRODUITS LYOPHILISÉS

Publication

EP 4296187 A1 20231227 (EN)

Application

EP 23181167 A 20230623

Priority

IT 202200013321 A 20220623

Abstract (en)

The present finding relates to a closure device (1), particularly for bottles of lyophilized products, comprising:- a perforable closure cap (3) adapted for closing the mouth (5) of a bottle (7);- an inner capsule (9), fittable at least on said closure cap (3), comprising a plurality of elastically deformable tabs (29) protruding radially towards the inside said inner capsule (9) and further comprising an opening (13) adapted for allowing access to said closure cap (3);- an outer tab (15) fittable on said inner capsule (9) and comprising an upper portion (17), at least partially removable, adapted for closing said closure (13) of said inner capsule (9). The closure device (1) has a closing configuration wherein said outer tab (15) is fixedly fitted to said inner capsule (9), said inner capsule (9) is fitted to the neck (11) of said bottle (7) and said tabs (29) engage at the bottom with the lip (31) of said bottle (7) so as to retain said closure cap (3) in a closing configuration to seal said mouth (5) of said bottle (7). The closure device (1) also has a preassembly configuration wherein:- said inner capsule (9) rests, with said tabs (29), on the mouth (5) of said bottle (7),- a slit (30) is present between said closure cap (3) and said mouth (5) of said bottle (7) adapted for allowing the passage of air. According to the finding, at least one air passage channel (90) is obtained in the inner capsule (9), said channel (90) extending, in the axial direction (A) towards said opening (13), beyond said tabs (29); in said preassembly configuration said outer tab (15) is fixedly fitted to said inner capsule (9) to form a preassembled closure assembly (2). Furthermore, the at least one air passage channel (90) putting the internal volume (70) of said bottle (7) in fluid communication with the external environment through said slit (30).

IPC 8 full level

B65D 51/24 (2006.01)

CPC (source: EP)

B65D 51/241 (2013.01); B65D 51/002 (2013.01)

Citation (search report)

- [Y] US 5314084 A 19940524 FOLTA CHRISTOPHER M [US], et al
- [Y] FR 2893922 A1 20070601 BIOCORP RECH ET DEV SA [FR]
- [Y] IT MI20110789 A1 20121110 IBSA INST BIOCHIMIQUE SA
- [Y] US 8777031 B2 20140715 ANEAS ANTOINE [FR]
- [Y] US 8839971 B2 20140923 ANEAS ANTOINE [FR]
- [Y] US 2013240476 A1 20130919 ANEAS ANTOINE [FR]

Designated contracting state (EPC)

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