

Title (en)

APPARATUS FOR SHELL FREEZING A LIQUID CONTENT IN A CONTAINER

Title (de)

VORRICHTUNG ZUM OBERFLÄCHENGEFRIEREN EINES FLÜSSIGEN INHALTS IN EINEM BEHÄLTER

Title (fr)

APPAREIL POUR CONGELATION EN COQUILLE D'UN CONTENU LIQUIDE DANS UN RECIPIENT

Publication

**EP 1759152 A1 20070307 (EN)**

Application

**EP 05748202 A 20050509**

Priority

- EP 2005005124 W 20050509
- GB 0410382 A 20040510

Abstract (en)

[origin: WO2005108885A1] An apparatus for shell freezing a liquid content in a container, comprising an endless loop conveyor (100) having a conveying length (101) adapted to convey plural containers such as pharmaceutical vials (1010), incorporating plural rollers (106) to spin the containers as they are conveyed by the conveyor (100), and a return length (102), along at least part of the return length (102) the rollers (106) are immersed in a cooling liquid at a temperature below the freezing point of the liquid content of the containers, and along the conveying length (101) the rollers (106) are entirely above the surface of the cooling liquid. A preferred cooling liquid is liquid nitrogen (201), the evaporating vapour (203) of which can be used to shield vials (1010) on the conveying length (101).

IPC 8 full level

**F25D 3/11** (2006.01); **F26B 5/06** (2006.01)

CPC (source: EP US)

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Citation (search report)

See references of WO 2005108885A1

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