

Title (en)  
VENTED SCREWCAP CLOSURE WITH DIFFUSIVE MEMBRANE LINER

Title (de)  
ENTLÜFTETER SCHRAUBKAPPENVERSCHLUSS MIT DIFFUSIVER MEMBRANAUSKLEIDUNG

Title (fr)  
FERMETURE À BOUCHON À VIS ÉVENTÉES AVEC DOUBLURE DE MEMBRANE DIFFUSIVE

Publication  
**EP 2310287 A4 20110629 (EN)**

Application  
**EP 09719792 A 20090312**

Priority  

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- US 10799208 P 20081023

Abstract (en)  
[origin: US2009230081A1] A liner for a wine bottle cap is constructed such that a gas, such as oxygen, that diffuses through the liner moves along a path within the liner whose length is greater than the thickness of the liner. In this manner, oxygen from the atmospheric air can diffuse through a relatively thin liner at a slow rate before reaching the bottled wine. The liner is comprised of alternating layers of material semi-permeable to oxygen and material impermeable to oxygen, the impermeable layers containing open areas through which oxygen can diffuse. As oxygen diffuses through the alternating layers, the path(s) along which the oxygen diffuses is determined by the locations of the open areas in the impermeable layers. The liner may be assembled with a screw cap closure that comprises ventilation holes connected by a raceway for distribution of atmospheric air to the liner.

IPC 8 full level  
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CPC (source: EP US)  
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Citation (search report)  

- [X] US 5531341 A 19960702 - SHLISKY BRIAN [US]
- [X] US 2501849 A 19500328 - KREBS CHARLES H
- [X] US 5730306 A 19980324 - COSTA STEPHEN M [US], et al
- [X] US 2005349 A 19350618 - RANEY MARION H
- [A] WO 02055397 A1 20020718 - MUSARAGNO MARCO [IT]
- [A] WO 2007147218 A1 20071227 - AMCOR LTD [AU], et al
- [A] GB 190903808 A 19091216 - RAFFLE MATTHEW HENRY, et al
- [A] GB 927095 A 19630529 - KARL EBNER
- See references of WO 2009114727A1

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