

Title (en)
CONTAINERS AND METHODS FOR DISPENSING MULTIPLE DOSES OF A CONCENTRATED LIQUID, AND SHELF STABLE
CONCENTRATED LIQUIDS

Title (de)
BEHÄLTER UND VERFAHREN ZUR AUSGABE VON MEHRFACHDOSIERUNGEN EINES FLÜSSIGKEITSKONZENTRATS UND HALTBARE
FLÜSSIGKEITSKONZENTRATE

Title (fr)
RÉCIPIENTS ET PROCÉDÉS DE DISTRIBUTION DE DOSES MULTIPLES D'UN LIQUIDE CONCENTRÉ, ET LIQUIDES CONCENTRÉS
STABLES À LA CONSERVATION

Publication
EP 2475584 A2 20120718 (EN)

Application
EP 10757668 A 20100910

Priority
• US 24158409 P 20090911
• US 32015510 P 20100401
• US 32021810 P 20100401
• US 37417810 P 20100816
• US 2010048449 W 20100910

Abstract (en)
[origin: WO2011031985A2] Containers and methods are provided for dispensing a liquid concentrate utilizing one or more desirable properties including a generally consistent discharge across a range of squeeze forces, a generally consistent discharge with the same force without significant dependence on the amount of liquid concentrate in the container, a substantially dripless or leak proof outlet opening, a jet that minimizes splashing when the liquid concentrate impacts a target liquid, and a jet that maximizes mixing between the liquid concentrate and the target liquid to produce a generally homogenous mixture without the use of extraneous utensils or shaking. Also provided are liquid beverage concentrates that can be cold filled during packaging, while maintaining shelf stability for at least twelve months at ambient temperatures. Concentrate can have a combination of low pH and high alcohol content such as a pH less than 3.5 and alcohol content great than 5 percent by weight.

IPC 8 full level
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CPC (source: CN EP KR RU US)
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B01F 35/71795 (2022.01 - CN EP KR RU US); **B65D 1/02** (2013.01 - KR); **B65D 37/00** (2013.01 - KR US); **B65D 47/20** (2013.01 - KR);
B65D 47/2031 (2013.01 - CN EP KR US); **B65D 47/305** (2013.01 - KR); **C12G 3/06** (2013.01 - EP US); **B65D 2547/063** (2013.01 - CN)

Citation (search report)
See references of WO 2011031985A2

Citation (examination)
• WO 2006102435 A2 20060928 - WATER SENSATIONS INC [US], et al
• US 2977231 A 19610328 - FOX IRVING [US], et al

Designated contracting state (EPC)
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AU 2010292122 A1 20120412; AU 2010292122 A2 20120426; AU 2010292122 B2 20160616; AU 2016262647 A1 20161208;
AU 2019257444 A1 20191121; AU 2019257444 B2 20211021; BR 112012005422 A2 20160412; BR 112012005422 B1 20201208;
CA 2773701 A1 20110317; CA 2773701 C 20180828; CN 102712396 A 20121003; CN 106185009 A 20161207; CN 106185009 B 20180803;
EP 2475584 A2 20120718; EP 3508436 A1 20190710; JP 2013504498 A 20130207; JP 2016188109 A 20161104; JP 2018188228 A 20181129;
JP 2020200114 A 20201217; JP 6727982 B2 20200722; JP 6746649 B2 20200826; KR 101809284 B1 20171214; KR 20130053381 A 20130523;
MX 2012002935 A 20120601; NZ 598818 A 20140530; RU 2012114192 A 20131020; RU 2016147566 A 20181023;
RU 2016147566 A3 20200130; RU 2606327 C2 20170110; RU 2717588 C2 20200324; SG 10201405639Y A 20141030;
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US 2010048449 W 20100910; AR P100103341 A 20100913; AU 2010292122 A 20100910; AU 2016262647 A 20161121;
AU 2019257444 A 20191030; BR 112012005422 A 20100910; CA 2773701 A 20100910; CN 201080050920 A 20100910;
CN 201610565763 A 20100910; EP 10757668 A 20100910; EP 19156252 A 20100910; JP 2012528931 A 20100910;
JP 2016156664 A 20160809; JP 2018169122 A 20180910; JP 2020133352 A 20200805; KR 20127009228 A 20100910;
MX 2012002935 A 20100910; NZ 59881810 A 20100910; RU 2012114192 A 20100910; RU 2016147566 A 20100910;
SG 10201405639Y A 20100910; SG 2012016846 A 20100910; US 201013395652 A 20100910