

Title (en)

A SELF COOLING CONTAINER AND A COOLING DEVICE

Title (de)

SELBSTKÜHLENDER BEHÄLTER UND KÜHLVORRICHTUNG

Title (fr)

CONTENANT AUTO-RÉFRIGÉRANT ET DISPOSITIF DE REFROIDISSEMENT

Publication

**EP 2376850 A1 20111019 (EN)**

Application

**EP 09764862 A 20091209**

Priority

- EP 2009066703 W 20091209
- EP 08388046 A 20081209
- EP 09170226 A 20090914
- EP 09764862 A 20091209

Abstract (en)

[origin: WO2010066772A1] The present invention relates to a container for storing a beverage, the container having a container body and a closure and defining an inner chamber, the inner chamber defining an inner volume and including a specific volume of the beverage. The container further includes a cooling device having a housing defining a housing volume. The cooling device includes at least two separate, substantially non-toxic reactants causing an entropy-increasing reaction producing substantially non-toxic products in a stoichiometric number. The at least two separate substantially non-toxic reactants initially being included in the cooling device are separated from one another and causing an entropy-increasing reaction and a heat reduction of the beverage of at least 50 Joules/ml beverage. The cooling device further includes an actuator for initiating the reaction between the at least two separate, substantially non-toxic reactants

IPC 8 full level

**F25D 5/02** (2006.01)

CPC (source: EP US)

**F25D 5/02** (2013.01 - EP US); **F25D 2331/805** (2013.01 - EP US)

Citation (examination)

US 4993237 A 19910219 - BOND JAMES R [CA], et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

RS

DOCDB simple family (publication)

**WO 2010066772 A1 20100617**; AU 2009324381 A1 20110630; AU 2009324384 A1 20110630; CA 2745986 A1 20100617; CA 2746246 A1 20100617; CN 102308163 A 20120104; CN 102308163 B 20141105; CN 102308164 A 20120104; CN 102308164 B 20141105; EA 020975 B1 20150331; EA 022570 B1 20160129; EA 201190065 A1 20120228; EA 201190066 A1 20120228; EP 2376850 A1 20111019; EP 2376851 A1 20111019; IL 213331 A0 20110731; IL 213332 A0 20110731; IL 213332 A 20160331; JP 2012511689 A 20120524; JP 2012511690 A 20120524; JP 5551180 B2 20140716; US 2011259020 A1 20111027; US 2011271692 A1 20111110; WO 2010066775 A1 20100617; ZA 201104225 B 20120926; ZA 201104226 B 20120926

DOCDB simple family (application)

**EP 2009066697 W 20091209**; AU 2009324381 A 20091209; AU 2009324384 A 20091209; CA 2745986 A 20091209; CA 2746246 A 20091209; CN 200980156212 A 20091209; CN 200980156213 A 20091209; EA 201190065 A 20091209; EA 201190066 A 20091209; EP 09764862 A 20091209; EP 09795379 A 20091209; EP 2009066703 W 20091209; IL 21333111 A 20110602; IL 21333211 A 20110602; JP 2011540067 A 20091209; JP 2011540068 A 20091209; US 200913133609 A 20091209; US 200913133621 A 20091209; ZA 201104225 A 20110607; ZA 201104226 A 20110607