

Title (en)

Cooling box and method for transporting heat-sensitive products in a transport vehicle and/or for distributing products to final customers

Title (de)

Kühlbox und Verfahren zum Transport von wärmeempfindlichen Produkten in einem Transportfahrzeug und/oder zum Verteilen von Produkten an Endkunden

Title (fr)

Boîte de refroidissement et procédé de transport de produits sensibles à la chaleur dans un véhicule de transport et/ou pour distribuer des produits aux clients finaux

Publication

EP 3051238 B1 20180103 (EN)

Application

EP 15153079 A 20150129

Priority

EP 15153079 A 20150129

Abstract (en)

[origin: EP3051238A1] The present invention relates to a cooling box (1) and a method for safely transporting heat-sensitive products (2) in a transport vehicle (3) and/or for distributing heat-sensitive products (2) to final customers. The cooling box (1) according to the invention comprises a thermally insulating cuboid housing (7) with a commissioning opening (8) on an upper side (11), a first (9) and a second (10) storage chamber, a cover (12) to open and close the commissioning opening (8) of the housing (7), the cover (12) containing a cool pack (13) with eutectic material (14) and having at least one coupling (15) for coupling a supply line (16) for a cooling fluid (17), preferably liquid nitrogen (LIN), and having heat exchange surfaces (19) to cool the cool pack (13) down by the cooling fluid (17), a profiled outer bottom plate (20) to cooperate in a form locking manner with a certain underlying raster (5; 29), and a profiled outer cover plate (21) to carry other transport containers (30). The method according to the invention for transporting heat-sensitive products (2) together with other transport containers (31) from a supply center (32) to final customers, comprises commissioning at least one such cooling box (1) with cooled heat-sensitive products (2) in the supply center (32), cooling down the cool pack (13) in the cover (12) during commissioning by supplying a cooling fluid (17), closing the cover (12), placing the cooling box (1) in a transport vehicle (3) together with other beverage boxes (29) and/or transport containers (31), transporting and distributing the cooled products (2) to final customers, returning the cooling box (1) to the supply center (32), and cleaning the storage chambers (9, 10) and starting the process as described again. The invention allows a safe and economic transport of different goods, including fresh food and deep frozen food to final customers. Especially the handling of heat-sensitive food is improved and the risks during transport and possible handling of cooling boxes by final customers are minimized.

IPC 8 full level

F25D 3/10 (2006.01)

CPC (source: EP)

F25D 3/107 (2013.01); **F25D 2303/0844** (2013.01)

Cited by

EP4047291A1; IT202100003623A1; CN112918525A; US11655094B2; WO2019223893A1

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3051238 A1 20160803; EP 3051238 B1 20180103; DK 3051238 T3 20180319; ES 2662820 T3 20180409; PT 3051238 T 20180320

DOCDB simple family (application)

EP 15153079 A 20150129; DK 15153079 T 20150129; ES 15153079 T 20150129; PT 15153079 T 20150129