

Title (en)

Low temperature conservation process for products in an insulated enclosure, apparatus for carrying out the process, insulated enclosure and container for such an enclosure.

Title (de)

Verfahren zur Konservierung von Waren bei niedrigen Temperaturen in einem isolierten Gehäuse, Vorrichtung zur Durchführung des Verfahrens, isoliertes Gehäuse und Behälter für solch ein Gehäuse.

Title (fr)

Procédé de conservation à basse température de produits dans une enceinte isolée, installation pour la mise en oeuvre du procédé, enceinte isolée et bac pour une telle enceinte.

Publication

EP 0631096 A1 19941228 (FR)

Application

EP 94401392 A 19940622

Priority

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- CH 281494 A 19940915
- FR 9307615 A 19930623
- US 28571894 A 19940804

Abstract (en)

The insulated enclosure (1) for conservation and transport comprises a carbon dioxide snow container (2) provided with a lateral opening (5) allowing pressurised liquid CO₂ to be injected into the container by means of a distributor (10) connected to a liquid CO₂ source (6), the distributor means being fitted with a solenoid valve (18) controlled by a control unit (19) comprising timer means allowing the duration of injection of liquid CO₂ into the container (2) to be selected in order to form therein a metered reserve of carbon dioxide snow. Application to the conservation and transport of fresh food products as frozen food products. <IMAGE>

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F25D 3/12

IPC 8 full level

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CPC (source: EP US)

F25D 3/125 (2013.01 - EP US); **F25D 29/001** (2013.01 - EP US)

Citation (search report)

- [A] FR 2534130 A1 19840413 - BEIZERMANN MICHEL [FR]
- [A] US 4377402 A 19830322 - CROWE ORLAND F, et al
- [A] US 4376511 A 19830315 - FRANKLIN JR PAUL R [US]
- [XA] US 3561226 A 19710209 - RUBIN JULIUS
- [A] US 2316423 A 19430413 - HARVEY LEO M, et al
- [A] US 2217169 A 19401008 - REUBEN HILL
- [A] US 1876915 A 19320913 - SAMUEL GORDON
- [A] US 4299429 A 19811110 - FRANKLIN JR PAUL R
- [XA] FR 2604243 A1 19880325 - ANHYDRIDE CARBONIQUE IND [FR]
- [DA] EP 0337860 A2 19891018 - CARBOXYQUE FRANCAISE [FR]
- [A] GB 2257501 A 19930113 - BOC GROUP PLC [GB]
- [A] US 4415346 A 19831115 - LOVE JAMES H [US]
- [A] US 4502293 A 19850305 - FRANKLIN JR PAUL R [US]
- [A] US 3861168 A 19750121 - SAYERS WILLIAM JOHN
- [A] US 4891954 A 19900109 - THOMSEN VAN E [US]
- [A] US 4704876 A 19871110 - HILL RALPH P [US]

Cited by

FR2758620A1; DE102010013056B4; FR2751623A1; US6131404A; EP0717246A1; EP0854334A1; EP1408295A3; DE19808267A1; CN112317745A; DE19749055A1; DE19749055C2; FR2752049A1; EP0823600A3; FR2752456A1; DE102011119526A1; EP2597402A3; DE102010013079A1; WO2011061431A1; EP2025249A1; DE102010013056A1; EP3090961A1; EP0863374A2; FR2760826A1; WO9840680A2; EP3653976A1; US11378323B2

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