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(54) Title: FOOD PRODUCT PACKAGE

(57) Abstract: A food product package comprising an outer enclosure (2) which contains a food product (3), characterized in that the outer enclosure (2) internally accommodates an inner enclosure (4) which contains at least one medical device (5), the inner enclosure (4) having at least one wall that has characteristics of an insulation barrier against substances that originate from the food product (3) and/or from the medical device (5).

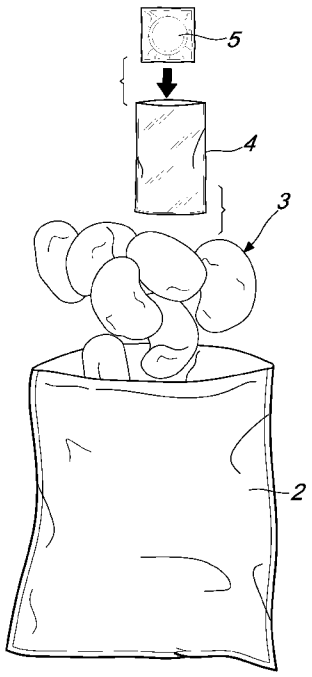

Fig. 1

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FOOD PRODUCT PACKAGE

The present invention relates to a food product package.

A problem that is greatly felt by the authorities responsible for preventive health care is that of popularizing the use of medical devices, such as condoms or the like, adapted to limit the spread of infectious diseases among the youth population.

The solution that is proposed to solve this problem is that of pairing a package of these medical devices with packages of products that are very popular with young people, such as for example packaged food products that are particularly appreciated by young consumers, such as food products consumed as snacks, which can include, for example, potato chips in bags, packaged nuts or the like.

Such solution, however, is not easily practicable in that there are technical difficulties in offering a food product which has to keep its organoleptic and healthful characteristics intact and even if it is placed in the same package in which there is also a medical device that, in turn, must not be altered or undergo damage such as to render it subsequently unusable.

The aim of the present invention is to provide a food product package that makes it possible to provide, in the same package, a food product and a medical device, such as for example a condom, without the risk that the food product and/or the medical device could undergo alterations or damage such as to nullify the possibility of its consumption or use.

Within this aim, an object of the invention is to provide a food product package that, owing to its construction characteristics, can be made with elements and materials that are readily available on the market so that it can be easily obtained even at low cost.

A still further object of the invention is to provide a food product package that is highly reliable so as to ensure the possibility of large-scale diffusion.

This aim and these and other objects which will become better apparent hereinafter are achieved by a food product package, according to claim 1, optionally provided with one or more of the characteristics of the dependent claims.

Further characteristics and advantages of the invention will become better apparent from the detailed description that follows of a preferred, but not exclusive, embodiment of the food product package according to the invention, which is illustrated for the purposes of non-limiting example in the accompanying drawings wherein:

Figure 1 is an exploded schematic view of the package according to the invention;

Figure 2 shows a medical device enclosed in an inner enclosure of the package according to the invention;

Figure 3 shows the package according to the invention, partially transparent;

Figure 4 is a cross-sectional view of a film for providing the inner enclosure.

With reference to the figures, the food product package according to the invention, generally designated by the reference numeral 1, comprises an outer enclosure 2, which is constituted, for example, by a bag or a box-like body made of suitable material, known per se, which contains inside it a food product 3, which can be, for example, in loose or granular form, such as potato chips, nuts or the like.

According to the invention, an inner enclosure 4 is internally accommodated in the outer enclosure 2 and contains, in turn, at least one medical device 5, which is constituted, for example, by at least one condom packaged inside its own packaging pouch or another medical device adapted to prevent infectious diseases.

Also according to the invention, the inner enclosure 4 defines at least one wall that has characteristics of an insulation barrier against substances

that originate from the food product 3 and/or from the medical device 5, so as to eliminate the risk of a possible cross-contamination of the food product 3 and of the medical device by the substances contained in them, such as, for example, oils contained in the food product 3 or disinfectant or preservative substances present in the medical device 5 or in the food product 3.

Conveniently, the inner enclosure 4 has, at least on its surface directed toward the food product 3, characteristics suitable for contact with that food product, so that it can be safely inserted into the mass of the food product 3.

In particular, the inner enclosure 4 is perfectly sealed and sterilized and is, advantageously, made of recyclable materials.

In more detail, the inner enclosure 4 comprises a bag made of a layered film 6.

In particular, the film 6 is, conveniently, structured so as to have at least one layer that is adapted to provide a barrier against liquid and/or gaseous substances and which therefore has adequate characteristics of impermeability to liquids, such as the liquids present in the food product 3 and in the medical device 5, and/or gases, such as vapors of volatile substances contained in the food product 3 and in the medical device 5 or the like, and is, advantageously, provided, at least on its face intended to be directed toward the food product 3, with at least one layer made of a material suitable for contact with the food product 3.

Advantageously, the film 6 can be, likewise, provided with at least one layer that is adapted to give it an adequate mechanical strength, so as to prevent its unwanted tearing or damage.

According to a possible embodiment, shown in Figure 4, the film 6 comprises at least one inner layer 6a, made of polyamide, the function of which is to give the film 6 the required mechanical strength characteristics.

Also according to such embodiment, the film 6 comprises, on at least one of its faces or, more preferably, on both of its opposing faces, at least

one layer 6b made of low-density or high-density polyethylene (LDPE or HDPE), which has adequate characteristics for contact with the food product 3 and the medical device 5.

Preferably, as shown again in Figure 4, the film 6 further comprises at least one layer 6c made of polyethylene terephthalate (PET), the function of which is to give the film 6 a suitable impermeability, and which is, conveniently, interposed between the inner layer 6a and the, or each, layer 6b.

Advantageously, the inner enclosure 4 is applied around the medical device 5 by way of flowpack packaging, i.e. with wrapping of the medical device 5 or of its packaging pouch, if present, with the film 6 in a wrapping station arranged along a linear conveyor device and subsequent sealing of that film 6 at its longitudinal and transverse ends, at a sealing station arranged along the linear conveyor device, downstream of the wrapping station, so as to close the inner enclosure 4, thus obtaining, as the output from the linear conveyor device, the inner enclosure 4, completely sealed with the medical device 5 enclosed inside it.

Conveniently, on the outer side of the outer enclosure 2 and more specifically at at least one portion of one of its outer faces, there is at least one space bearing instructions for using the medical device 5 contained in the inner enclosure 4 and/or information about the characteristics of that medical device.

Use of the food product package, according to the invention, is evident from the foregoing description.

In particular, it is clear that inside the outer enclosure 2 that contains the food product 3, the consumer can also find a package of the medical device 5 and, in particular, of condoms, suitably protected and isolated from the food product 3 by virtue of the inner enclosure 4 in which it is enclosed.

In practice it has been found that the invention fully achieves the intended aim and objects by providing a food product package inside which

a suitably isolated and protected medical device is contained.

The invention, thus conceived, is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims. Moreover, all the details may be substituted by other, technically equivalent elements.

In practice, the materials used, as well as the contingent shapes and dimensions, may be any according to the requirements and to the state of the art.

The disclosures in Italian Patent Application No. 102017000034253 from which this application claims priority are incorporated herein by reference.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

CLAIMS

1. A food product package comprising an outer enclosure (2) which contains a food product (3), characterized in that said outer enclosure (2) internally accommodates an inner enclosure (4) which contains at least one medical device (5), said inner enclosure (4) having at least one wall that has characteristics of an insulation barrier against substances that originate from said food product (3) and/or from said medical device (5).

2. The package according to claim 1, characterized in that said inner enclosure (4) has, at least on its surface directed toward said food product (3), characteristics suitable for contact with said food product (3).

3. The package according to one or more of the preceding claims, characterized in that said inner enclosure (4) comprises a bag made of a layered film (6).

4. The package according to one or more of the preceding claims, characterized in that said film (6) has at least one layer that is adapted to provide a barrier against liquid and/or gaseous substances.

5. The package according to one or more of the preceding claims, characterized in that said film (6) has, at least on its face designed to be directed toward said food product, at least one layer made of a material suitable for contact with said food product (3).

6. The package according to one or more of the preceding claims, characterized in that said film comprises at least one layer adapted to give mechanical strength to said film.

7. The package according to one or more of the preceding claims, characterized in that said film comprises at least one inner layer (6a) made of polyamide.

8. The package according to one or more of the preceding claims, characterized in that said film comprises, on at least one face, at least one outer layer (6b) made of low-density polyethylene (LDPE) or high-density polyethylene (HDPE).

9. The package according to one or more of the preceding claims, characterized in that said film comprises at least one layer (6c) made of polyethylene terephthalate (PET).

10. The package according to one or more of the preceding claims, characterized in that said medical device (5) comprises at least one condom packaged within its own packaging pouch.

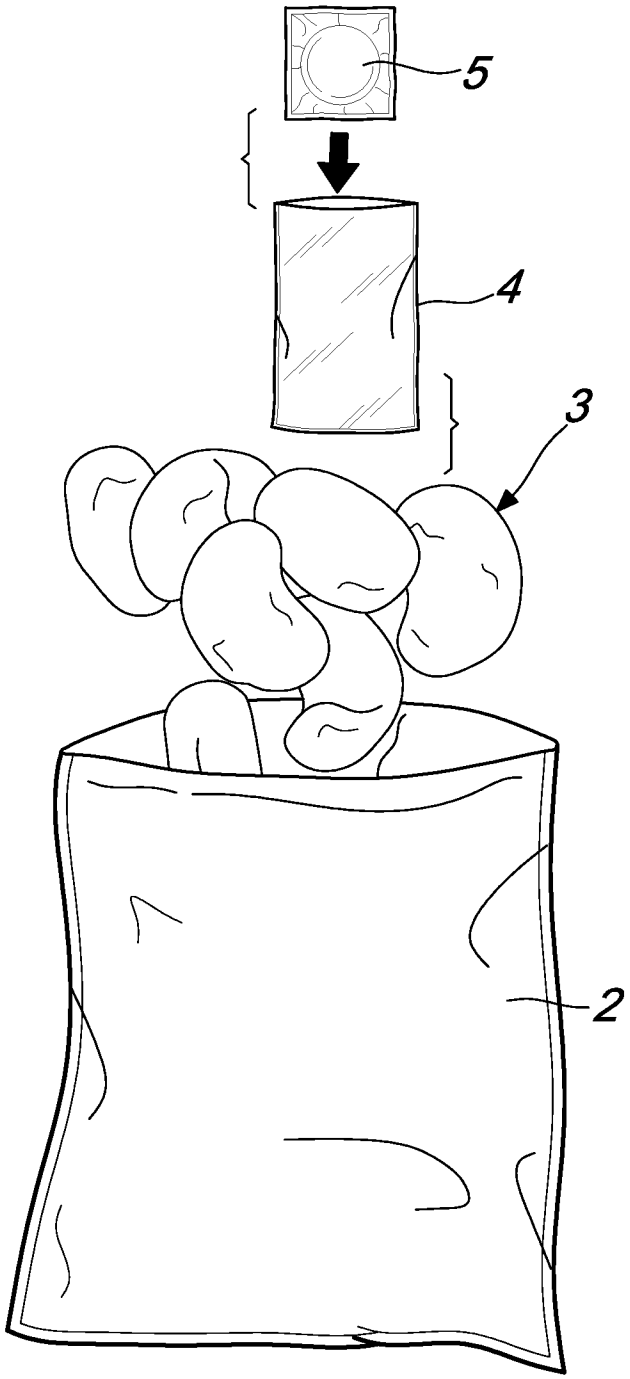

Fig. 1

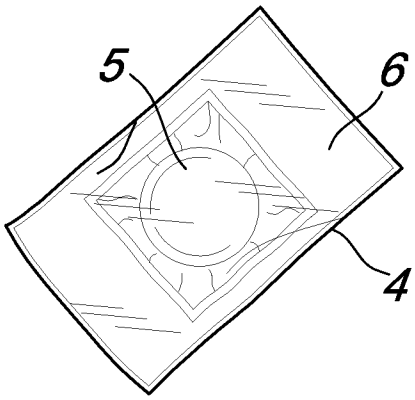

Fig. 2

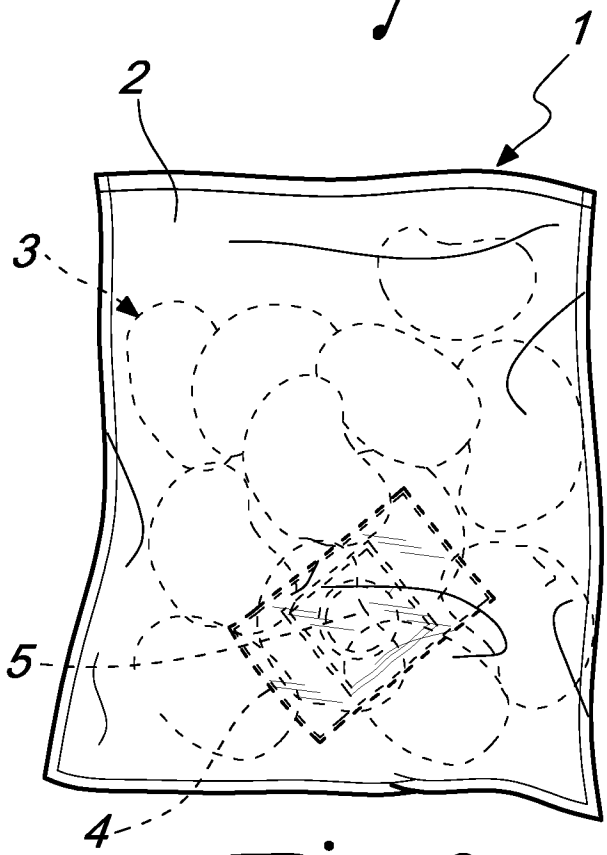

Fig. 3

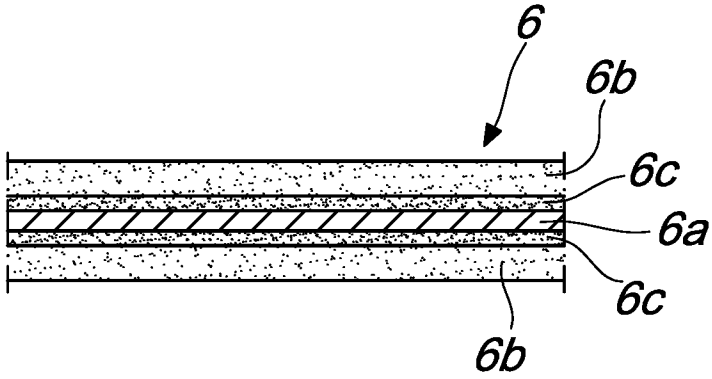

Fig. 4

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D77/04 B65D33/00 B65D81/34
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B65D A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LV 13 494 B (SVJATOVA TATJANA [LV]) 20 December 2006 (2006-12-20) See embodiment of figure 1, which according to the translation of the summary available to the international searching authority shows a wrapped moist wipe in a pack of snack food	1-6
X	WO 00/61460 A1 (SLJUSARENKO SERGEI VALERIEVICH [RU]) 19 October 2000 (2000-10-19) See figures 1-2; Abstract	1-10
X	FR 2 796 042 A1 (WU LIN CHAU [FR]) 12 January 2001 (2001-01-12) page 2, last paragraph; claims 1-3; figure 6	1-10

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
26 April 2018	04/05/2018

Name and mailing address of the ISA/	Authorized officer
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 103 16 038 A1 (BRULS GEORGE [DE]) 23 December 2004 (2004-12-23) claims 1-3; figures 1-7b	1-10
A	DE 10 2007 047623 A1 (M E D MEDICAL PRODUCTS GMBH [DE]) 9 April 2009 (2009-04-09) figures 1,2,4	1-10
A	US 2014/220185 A1 (SPATHONI NEKTARIA [GR]) 7 August 2014 (2014-08-07) figures 1-5	1-10
A	US 2005/129812 A1 (BROWN MARTHA J M [US] ET AL) 16 June 2005 (2005-06-16) paragraph [0030]; figure 3	1-10

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2018/057977

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