In addition, the document EP 1 179 978 proposes a container for marine transport, the internal space of which is divided into a fumigation chamber, in which the products to be transported and fumigated are disposed, and a chamber for controlling the fumigation. Once the fumigation has been carried out, in order to reduce the toxicity of the internal space of the container, the gases are purified by an active carbon absorption bed before being discharged to the external atmosphere by a fan. However, the solution of discharging these gases in to the atmosphere even purified is not satisfactory from an environmental point of view (risk of saturation of the filter, of mediocre purification and of pollution).

Disclosure of the invention

Embodiments of the invention aim to overcome these drawbacks by proposing a container solution allowing all the following:

- easy recovery at sea, secure including in the case of falling into the sea
- participation in reduction of fixed costs related to transport (energy), all transport modes taken together, without reduction in commercial speed
- protection of handling and inspection personnel (and end user)
- without any modification to the container in terms of dimensions and handling and transport

functionalities, in order to comply with current standards.

An aspect of the present invention relates to a stackable container used for the transport of products, comprising:

- a part forming a crate defining a base and four side walls and a top wall, secured to one another sealingly, produced mainly from plastics material,
- a door for sealed closure of the crate, forming a sealed box with the crate when closed thereon,
- a system for aspiration and compression of the gases contained in the closed box,
- at least one gastight casing for storing the aspirated and compressed gases, secured to the box and forming a bracing frame during transport and a flotation buoy when the container is immersed in water.

Embodiments of the invention thus defined may make it possible, by virtue of the above main elements, to have a structure that is relatively lightweight and easy to maintain compared with steel ones, while guaranteeing health safety because of the aspiration of the gases in the internal space of the box, safer transport because of the chocking of the products and facilitated recovery at sea because of the relative lightness of the container and the presence of flotation buoys.

Embodiments of the invention moreover have one or other or all of the following additional features:

CLAIMS

1. A device forming a stackable container used for the transport of products, comprising:

- a part forming a crate defining a base and four side walls and a top wall, secured to one another sealingly, produced mainly from plastics material,
- a door for sealed closure of the crate, forming a sealed box with the crate when closed thereon,
- a system for aspiration and compression of the gases contained in the closed box,
- at least one gastight casing for storing the aspirated and compressed gases, secured to the box and forming a bracing bag during transport and a floatation buoy when the container is immersed in water.

2. A device according to claim 1, in which the system for aspiration and compression of the gases contained in the closed box and/or the sealed casing for storage of the aspirated and compressed gases is disposed inside the box.

3. A device according to claim 2, in which the sealed casing is fixed in a region of the internal space of the box where this casing, once inflated, is able to serve as a means for chocking the products being transported.

4. A device according to any of the preceding claims, in which the sealed storage casing is removably fixed inside the box.

5. A device according to any of the preceding claims, comprising an analyser for the gases aspirated by the system for aspiration and compression of the gases.

6. A device according to claim 5, comprising a unit for comparing the results of analysis of the aspirated gases with a database listing the analysis results obtained under similar conditions in the presence of known reference elements such as intoxicants, and/or a human presence.

7. A device according to any of the preceding claims, in which the bottom wall of the box comprises an integrated weight sensor.

8. A device according to any of the preceding claims, in which the crate of the container is obtained by moulding.

9. A device according to claim 8, in which the crate is:

- formed in a single piece by moulding a material in a hollow parallelepipedal shape, or
- formed by the assembly of a plurality of walls obtained by moulding a material in a flat shape defining, between the side walls and the base,

sealed articulations allowing erection, erection in parallelepipedal form and then sealed fixing of the adjacent walls not connected by a sealed articulation

10. A device according to claim 8 or claim 9, in which the box comprises a solar panel at least on its top wall.

11. A device according to any of the preceding claims, comprising corner parts allowing stacking of the container, and/or a weight sensor such as a strain gauge, and/or a system for connecting a solar panel, these parts or gauges or connection system being co-moulded or overmoulded with the crate.

12. A device according to any of the preceding claims, in which the door is obtained by moulding and frames providing hinging thereof are co-moulded or overmoulded with the door.

13. A device according to any of the preceding claims, comprising an external hatch for access to the internal space of the box.

14. A device according to any of the preceding claims, in which the walls of the box are formed from plastics materials or plastic/metallic composite materials or an ecomaterial based on plastics material.

15. A device according to claim 14, characterised in that the plastics material is formed

by a polymer of the type consisting of expanded polystyrene or foam, polyurethane, polystyrene, epoxy resin, low- or high-density polyethylene, polyethylene with a very high molar mass UHMPE, polyphenylene sulphide, PEEK or biopolymer.

16. A device according to claim 14 or claim 15, characterised in that the material constituting the walls of the box is reinforced by glass fibres, carbon fibres, graphite fibres, a woven glass fabric or an epoxy resin fabric, or by bromine, or anti-UV treated.

17. A device according to any of the preceding claims, characterised in that the base of the crate is formed from wood, or composite wood including a plastic resin associated with wood fibres.

18. A device according to any of the preceding claims, characterised in that the sealed box comprises a metal framework formed by beams and cross members, to which panels are fixed, forming the walls of the sealed box.

19. A device according to any of the preceding claims, characterised in that the box comprises frames (51) for hinging the door made from metal, ceramic, or rigid plastics material.

20. A device according to any of the preceding claims, characterised in that the box comprises corner parts enabling said container to be anchored and/or to

be stacked on other containers made from metal, ceramic or rigid plastics material.

21. A device according to any of the preceding claims, characterised in that the gastight casing comprises a main part delimiting an internal space for storing products and a secondary part provided with compartmentalisation inserts secured to the main part, and defining together compartments for storing fragile products.

22. A device according to claim 21, characterised in that the inserts consist of gastight casings for storing aspirated and compressed gases.

23. A device according to claim 21 or claim 22, characterised in that the inserts comprise, on their internal faces delimiting a compartment, protection for fragile products, of the neoprene type.