

Claims

1. Dispensing and preparation apparatus for powdered food or beverage products, the apparatus comprising a dispensing device (60) and an associated preparation or extraction device (70);
- the dispensing device (60) comprising one or more housings for receiving one or more containers (10, 20) with a powdered food or beverage product; the dispensing device (60) comprising a reader (62) to obtain the information of the product parameters of the powdered food or beverage products from the one or plurality of containers (10, 20); the dispensing device (60) further comprising a control unit configured to dispense a certain amount of powdered food or beverage product from each container (10, 20) according to these product parameters and/or according to a recipes database (64) as a function of the beverage to be prepared;
- the dispensing device (60) further comprising an encoder (63) to encode the beverage information on programmable identification means (65) on a product holder (61) in the dispensing device (60), to where the dispensed powdered food or beverage product is sent;
- the preparation or extraction device (70) being configured for receiving the product holder (61) and comprising reading means (72) to identify the beverage information in the said product holder identification means (65), the extraction device (70) further comprising a control unit to extract the beverage according to the beverage information retrieved from the product holder (61) and/or from the beverage information retrieved from a beverage database in this control unit.
2. Dispensing and extraction apparatus for powdered food or beverage products according to claim 1 wherein the product parameters comprises one or a plurality of the following data: product type, product origin, date of production, production data, list of ingredients, date of expiration, company data and or marketing info.
3. Dispensing and extraction apparatus for powdered food or beverage products according to any of claims 1-2 wherein the beverage information comprises one or a plurality of the following data: beverage type and associated preparation process

(dissolution, brewing, infusion...), beverage volume, beverage temperature and/or extraction pump profile.

- 5 4. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the product holder (61) comprises plugging means to be quickly plugged and/or unplugged onto the dispensing device and onto the extraction device so it is freely exchangeable (plug & play).
- 10 5. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the product holder (61) is locked on the dispensing device (60) and on the extraction device (70) to allow firm fix of it during the dispensing and the extraction operations, respectively.
- 15 6. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the containers (10, 20) with the powdered food or beverage products comprise identification means (21) with the characteristics of these powdered food or beverage products, to be read by the reading means (62) in the dispensing device (60), these identification means (21) being optical, such as a barcode, OID and/or a QR code, and/or electromagnetically read
20 identification means such as a RFID tag.
- 25 7. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the one or plurality of containers (10, 20) have an embedded dosing device to dose only the needed quantity of powdered food or beverage product into the product holder (61).
- 30 8. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the one or plurality of containers (10, 20) are oxygen and/or humidity and/or light barrier during storage and/or dispensing.
- 35 9. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the one or plurality of containers (10, 20) are tight, allowing no air exchange with the product during storage and/or dispensing.
10. Dispensing and extraction apparatus for powdered food or beverage products according to claim 7 wherein the dispensing device (60) comprises a motor and a drive to control the embedded dosing device of the one or plurality of containers (10, 20) to

dose only the needed dose of powdered food or beverage product into the product holder (61).

- 5 11. Dispensing and extraction apparatus for powdered food or beverage products according to any of the previous claims wherein the dispensing device (60) comprises a RFID tag reader (62) to obtain the information of the product parameters of the powdered food or beverage products of the one or more containers (10, 20) connected to it.
- 10 12. Method for dispensing powdered food or beverage products and preparing a beverage from them using a dispensing and extraction apparatus according to any of claims 1-11, the method comprising the following steps:
- reading the product parameters in the one or plurality of containers (10, 20);
 - dispensing a certain quantity of powdered food or beverage product from one or a
 - 15 plurality of containers (10, 20) plugged in the dispensing device (60);
 - carrying out the dispensing as to dispensed quantity according to the product parameters read and/or according to a recipes database;
 - encoding the beverage information on the product holder (61) in the dispensing device (60);
 - 20 - transferring the product holder (61) to the extraction device (70) manually or automatically;
 - reading the beverage information from the product holder (61) by the extraction device (70) and extracting the beverage according to the beverage information retrieved and/or from the beverage information retrieved from a beverage database.
- 25 13. Use of a dispensing and extraction apparatus according to any of claims 1-11 for delivering a certain beverage from powdered food or beverage products.