PACKAGING FOR ASSAYS AND RELATED METHODS

FIELD

[0001] The disclosure is directed to an assay kit package, an insert for same, and methods of preparing the insert and for manufacturing, assembling, storing, and reassembling an assay kit.

BACKGROUND

[0002] Heretofore, it was problematic to quickly identify and correctly match assay kit reagents and components for assays for quick and accurate assembly, shipping and reassembly, including for example, where portions of the assay kit may be shipped or stored separately, including at different temperatures and/or at different locations. Such logistics typically require some disassembly of the related packages to identify contents and/or reliance on identifier coding that oftentimes requires extensive cross referencing and/or undue machinations by personnel to ensure proper assembly during manufacture or during reunification. Hence, an improved package and methods which permit the assay kit reagents and components to be quickly and reliably assembled, shipped, and subsequently reassembled by the customer is needed, and which also provide greatly improved operational experiences at the manufacturer and user level.

SUMMARY

[0003] In one practice, the disclosure provides a package for a particular assay kit comprising a tray having assay product information on an outer sidewall; an insert disposed within the tray, the insert configured to hold a plurality of assay kit reagent containers comprising the same or different reagents, wherein each assay kit reagent container has a container bottom, wherein all or a subset of each assay kit reagent container bottom comprises a product code that is readable by a human, a machine, or both and identifies the reagent within that particular container, the insert comprising an upper surface, a bottom surface, and a plurality of through holes extending through the insert from the upper surface to the bottom surface, each of the plurality of through holes shaped to individually

hold a respective assay kit reagent container such that the product code located on each container bottom is readable through the respective through hole at the bottom surface of the insert.

[0004] The disclosure also provides a loaded insert that is filled or partially filled with assay kit reagent containers for a tray or a outer box, wherein the loaded insert comprises an upper surface, a bottom surface, and a plurality of through holes extending from the upper surface of the insert to the bottom surface of the insert; and a plurality of assay kit reagent containers comprising the same or different reagents, each of the plurality of assay kit reagent containers disposed within a respective through hole of the plurality of through holes, each of the plurality of assay kit reagent containers or a subset thereof having a container bottom on which is located a product code identifying the reagent within that particular container, the product code readable by a human or a machine or both through the respective through hole at the bottom surface of the loaded insert.

[0005] The disclosure additionally provides a method of preparing a loaded insert for an assay kit comprising providing a plurality of assay kit reagent containers associated with a particular assay kit, the plurality of assay kit reagent containers comprising the same or different reagents, each of the plurality of assay kit reagent containers or a subset thereof having a container bottom on which is located a product code identifying the reagent within that particular container, the product code readable by a human or a machine or both; providing an insert that comprises an upper surface, a bottom surface, and one or more through holes extending from the upper surface of the insert to the bottom surface of the insert; preparing a loaded insert by disposing each of the plurality of assay kit reagent containers into a respective through hole of the plurality of through holes such that the product code on each container bottom or subset comprising the product code is readable through the respective through hole at the bottom surface of the insert; inputting the product code on each container bottom or subset comprising the product code into a database accessible by a computer, the database comprising information about reagents for the particular assay kit; and comparing the product code on each container or subset comprising the product code with the information in the database about the reagents for the particular assay kit to verify

CLAIMS

What is claimed is:

1. A package for a particular assay kit comprising:

a tray having assay product information on an outer sidewall;

an insert disposed within the tray, the insert configured or adapted to hold a plurality of assay kit reagent containers comprising the same or different reagents, wherein each assay kit reagent container has a container bottom, wherein all or a subset of each assay kit reagent container bottom comprises a product code that is readable by a human, a machine, or both and identifies the reagent within that particular container, wherein the insert comprises an upper surface, a bottom surface, and a plurality of through holes extending through the insert from the upper surface to the bottom surface, and wherein each of the plurality of through holes is shaped to individually hold a respective assay kit reagent container such that the product code located on each container bottom is readable through the respective through hole at the bottom surface of the insert.

2. The package of Claim 1 further comprising an outer box that comprises a sidewall with a window, wherein the tray is disposed within the outer box to display the assay product information through the window.

3. The package of Claim 1 wherein the assay product information comprises an assay name or an assay category or assay type.

4. The package of Claim 1 wherein the tray comprises an assay kit collection code that is human readable, machine readable, or both, wherein the assay kit collection code is unique for that particular assay product.

5. The package of Claim 1 wherein the product code comprises a 2D or 3Ddata-matrix barcode, or a QRS code.

6. The package of Claim 1 wherein the insert comprises foam.

7. The package of Claim 1 wherein the upper surface and the bottom surface of the insert are each substantially planar.

8. The package of Claim 1 further comprising a plurality of assay kit reagent containers.

9. The package of Claim 8 wherein the plurality of assay kit reagent containers comprise at least two different container shapes, at least two different container sizes, or both.

10. The package of Claim 8 wherein the reagents comprise any one or more of the following: antibodies, controls, calibrators, diluents, buffers, and combinations of any of the foregoing.