§ 146.145 Orange juice from concentrate.

(a) Orange juice from concentrate is the food prepared by mixing water with frozen concentrated orange juice as defined in §146.146 or with concentrated orange juice for manufacturing as defined in §146.153 (when made from mature oranges), or both. To such mixture may be added orange juice as defined in §146.135, frozen orange juice as defined in §146.137, orange juice for manufacturing as defined in §146.151 (when made from mature oranges and preserved by chilling or freezing but not by canning), orange oil, orange pulp, and one or more of the sweetening ingredients listed in paragraph (b) of this section. The finished orange juice from concentrate contains not less than 11.8 percent orange juice soluble solids, exclusive of solids of any added optional sweetening ingredients. It may be so treated by heat as to reduce substantially the enzymatic activity and the number of viable microorganisms.

(b) The sweetening ingredients referred to in paragraph (a) of this section are sugar, sugar sirup, invert sugar, invert sugar sirup, dextrose, corn sirup, dried corn sirup, glucose sirup, dried glucose sirup.

(c) The name of the food is “Orange juice from concentrate”. The words “from concentrate” shall be shown in letters not less than one-half the height of the letters in the words “orange juice”.

(d) When orange juice from concentrate contains any optional sweetening ingredient as listed in paragraph (b) of this section, whether added directly as such or indirectly as an added ingredient of any orange juice product used, the label shall bear the statement “____ added”, the blank being filled in with the name or an appropriate combination of the names of the sweetening ingredients added. However, for the purposes of this section the name “sweetener” may be used in lieu of the specific name or names of the sweetening ingredients.

(e) Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements specified in this section for naming the optional ingredients used shall immediately and conspicuously precede or follow the name of the food, without intervening written, printed, or graphic matter.

(f) Label declaration. Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

§ 146.146 Frozen concentrated orange juice.

(a) Frozen concentrated orange juice is the food prepared by removing water from the juice of mature oranges as provided in §146.135, to which may be added unfermented juice obtained from mature oranges of the species Citrus reticulata, other Citrus reticulata hybrids, or of Citrus aurantium, or both. However, in the unconcentrated blend, the volume of juice from Citrus reticulata or Citrus reticulata hybrids shall not exceed 10 percent (except that this limitation shall not apply to the hybrid species described in §146.135) and from Citrus aurantium shall not exceed 5 percent. The concentrate so obtained is frozen. In its preparation, seeds (except embryonic seeds and small fragments of seeds that cannot be separated by good manufacturing practice) and excess pulp are removed, and a properly prepared water extract of the excess pulp so removed may be added. Orange oil, orange pulp, orange essence (obtained from orange juice), orange juice and other orange juice concentrate as provided in §146.135 (when made from mature oranges), water, and one or more of the optional sweetening ingredients specified in paragraph (b) of this section may be added to adjust the final composition. The juice of Citrus reticulata and Citrus aurantium, as permitted by this paragraph, may be...
added in single strength or concentrated form prior to concentration of the Citrus sinensis juice, or in concentrated form during adjustment of the composition of the finished food. The addition of concentrated juice from Citrus reticulata or Citrus aurantium, or both, shall not exceed, on a single-strength basis, the 10 percent maximum for Citrus reticulata and the 5 percent maximum for Citrus aurantium prescribed by this paragraph. Any of the ingredients of the finished concentrate may have been so treated by heat as to reduce substantially the enzymatic activity and the number of viable microorganisms. The finished food is of such concentration that when diluted according to label directions the diluted article will contain not less than 11.8 percent by weight of orange juice soluble solids, exclusive of the solids of any added optional sweetening ingredients. The dilution ratio shall be not less than 3 plus 1. For the purposes of this section and § 146.150, the term “dilution ratio” means the whole number of volumes of water per volume of frozen concentrate required to produce orange juice from concentrate having orange juice soluble solids of not less than 11.0 percent by weight exclusive of the solids of any added optional sweetening ingredients.

(b) The optional sweetening ingredients referred to in paragraph (a) of this section are sugar, sugar sirup, invert sugar, invert sugar sirup, dextrose, corn sirup, dried corn sirup, glucose sirup, and dried glucose sirup.

(c) If one or more of the sweetening ingredients specified in paragraph (b) of this section are added to the frozen concentrated orange juice, the label shall bear the statement “added”, the blank being filled in with the name or an appropriate combination of names of the sweetening ingredients used. However, for the purpose of this section, the name “sweetener” may be used in lieu of the specific name or names of the sweetening ingredients.

(d) The name of the food concentrated to a dilution ratio of 3 plus 1 is “frozen concentrated orange juice, plus 1” or “frozen orange juice concentrate, plus 1”. The name of the food concentrated to a dilution ratio greater than 3 plus 1 is “frozen concentrated orange juice, plus 1” or “frozen orange juice concentrate, plus 1”, the blank being filled in with the whole number showing the dilution ratio; for example, “frozen orange juice concentrate, 4 plus 1”. However, where the label bears directions for making 1 quart of orange juice from concentrate (or multiples of a quart), the blank in the name may be filled in with a mixed number; for example, “frozen orange juice concentrate, 4 1/2 plus 1”. For containers larger than 1 pint, the dilution ratio in the name may be replaced by the concentration of orange juice soluble solids in degrees Brix; for example, a 62° Brix concentrate in 3 1/2-gallon cans may be named on the label “frozen concentrated orange juice, 62° Brix”.

(e) Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements specified in this section for naming the optional ingredients used shall immediately and conspicuously precede or follow the name of the food, without intervening written, printed, or graphic matter.

(f) Nothing in this section is intended to interfere with the adoption and enforcement by any State, in regulating the production of frozen concentrated orange juice in such State, of State standards, consistent with this section, but which impose higher or more restrictive requirements than those set forth in this section.

(g) Label declaration. Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.


§ 146.148 Reduced acid frozen concentrated orange juice.

(a) Reduced acid frozen concentrated orange juice is the food that complies with the requirements for composition and label declaration of ingredients prescribed for frozen concentrated orange juice by § 146.146, except that it may not contain any added sweetening ingredient. A process involving the use of anionic ion-exchange resins permitted by § 173.25 of this chapter is used.