

materials shall be subjected to inspection for quality and condition prior to being combined and processed into the finished mix. All necessary precautions shall be taken to prevent the contamination of any raw material or the finished mix with any foreign substance.

§ 58.635 Pasteurization of the mix.

Every particle of the mix, except added flavoring ingredients, shall be pasteurized at not less than 155 °F. and held at that temperature for 30 minutes or for 175 °F. for 25 seconds; or it may be pasteurized by any other equivalent temperature and holding time which will assure adequate pasteurization.

§ 58.636 Homogenization.

Homogenization of the pasteurized mix shall be accomplished to effectively reduce the size of the milkfat globules and evenly disperse them throughout the mix.

§ 58.637 Cooling the mix.

The mix shall be immediately cooled to a temperature of 45 °F. or lower, and stored at this temperature until further processing begins.

§ 58.638 Freezing the mix.

After the mix enters the freezer, it shall be frozen as rapidly as possible to assure the formation of minute crystals. Proper adjustment of rate of flow, refrigerant and air pressure controls shall be achieved to assure correct overrun and consistency of the product for packaging and further freezing.

§ 58.639 Addition of flavor.

The addition of flavoring ingredients to semi-frozen mix just prior to packaging shall be performed in a clean and sanitary manner. Care shall be taken to insure the flavor injection equipment has been properly cleaned and sanitized prior to use and that the flavor ingredients are of good quality and wholesome.

§ 58.640 Packaging.

The packaging of the semifrozen product shall be done by means which will in no way contaminate the container or the product. When single service containers and lids are used,

they shall be of good construction and protect the finished product. Containers used for frozen products shall be stored and handled in a sanitary manner so as to protect them from dust and bacterial contamination.

§ 58.641 Hardening and storage.

Immediately after the semifrozen product is placed in its intended container it shall be placed in a hardening tunnel or hardening room to continue the freezing process. Rapid freezing to 0° to -15 °F is desirable to produce a good textured product.

§ 58.642 Quality control tests.

All mix ingredients shall be subject to inspection for quality and condition throughout each processing operation. Quality control tests shall be made on flow line samples as often as necessary to check the effectiveness of processing and sanitation and as an aid in correcting deficiencies. Routine analysis shall be made on raw materials and finished products to assure adequate composition, weight or volume control.

§ 58.643 Frequency of sampling.

(a) *Microbiological.* Representative samples shall be taken from each type of mix, and for the finished frozen product one sample from each flavor made.

(b) *Composition.* Representative samples shall be tested for fat and solids-not-fat on each type of mix manufactured. Spot checks shall be made on the finished products as often as is necessary to assure compliance with composition standards.

(c) *Weight or volume control.* Representative samples of the packaged products shall be checked during the packaging operation to assure compliance with the stated volume on the container as well as weight and overrun requirements.

§ 58.644 Test methods.

(a) *Microbiological.* Microbiological determinations shall be made in accordance with the methods described in the latest edition of Standard Methods for the Examination of Dairy Products.

(b) *Chemical.* Chemical analysis shall be made in accordance with the methods described in the latest edition of

Official Methods of Analysis of the Association of Official Analytical Chemists, the latest edition of Standard Methods, or by other methods giving equivalent results.

§ 58.645 General identification.

The various types of frozen desserts shall be packaged and labeled in accordance with the applicable regulations of the Food and Drug Administration.

REQUIREMENTS FOR FINISHED PRODUCTS
BEARING USDA OFFICIAL IDENTIFICATION

§ 58.646 Official identification.

(a) Only ice cream and related products manufactured and packaged in accordance with the requirements of this part and with the applicable requirements in subpart A of this part which have been officially inspected in process and found to be in compliance with these requirements may be identified with the official USDA Quality Approved Inspection Shield.

(b) Dairy products used in the manufacture of frozen desserts for which there are U.S. grades established (non-fat dry milk, whole milk, buttermilk and whey) shall be U.S. Extra Grade or better, and in the case of unsalted butter, shall be no lower than U.S. Grade A. Dairy products for which there are not USDA grade shall meet the applicable requirements of this part which permit such product to bear the USDA Quality Approved Inspection Shield.

§ 58.647 Composition requirements for ice cream.

See § 58.605(a).

§ 58.648 Microbiological requirements for ice cream.

The finished product shall contain not more than 50,000 bacteria per gram as determined by the standard plate count, and shall contain not more than 10 coliform organisms per gram for plain and not more than 20 coliform per gram in chocolate, fruit, nut or other flavors in three out of five samples.

§ 58.649 Physical requirements for ice cream.

(a) *Flavor.* The flavor of the finished ice cream shall be pleasing and desirable, and characteristic of the fresh milk and cream and the particular flavoring used.

(b) *Body and texture.* The body shall be firm, have substance and readily melt to a creamy consistency when exposed to room temperatures; the texture shall be fine, smooth, and have the appearance of creaminess throughout.

(c) *Color.* The color shall be attractive, pleasing, uniform and characteristic of the flavor represented.

§ 58.650 Requirements for frozen custard.

The same requirements apply as for ice cream except plain frozen custard shall have a minimum egg yolk solids content of 1.4 percent, and 1.12 percent when fruits, nuts and other such ingredients are used for flavoring.

§ 58.651 Requirements for ice milk.

The requirements are the same as for ice cream except: (a) The minimum milk fat content shall be 2 percent by weight and the maximum milk fat content 7 percent by weight, (b) the total milk solids content shall be no less than 11 percent by weight, (c) the minimum total food solids weight per gallon shall be 1.3 pounds, (d) no reduction in the standards are permitted when fruits, nuts and other such ingredients are used for flavoring.

§ 58.652 Composition requirements for sherbet.

See § 58.605(d).

§ 58.653 Microbiological requirements for sherbet.

The finished product shall contain not more than 50,000 bacteria per gram as determined by the standard plate count and shall contain not more than 10 coliform organisms per gram in three out of five samples.

§ 58.654 Physical requirements for sherbet.

(a) *Flavor.* The flavor of the finished sherbet shall be pleasing and desirable