## Agricultural Marketing Service, USDA

### OPERATIONS AND OPERATING PROCEDURES

# §58.634 Assembling and combining mix ingredients.

The assembling and combining of mix ingredients for processing shall be in accordance with clean and sanitary methods and shall be consistent with good commercial practices. All raw 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  $0^{\circ}$  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 solidsnot-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.