A Guide to Food Manufacturers Frozen Confections



According to the Frozen Confections Regulation of the Public Health & Municipal Services Ordinance (Cap. 132), frozen confection means any confection commonly sold for human consumption in a frozen or chilled state. Some examples are ice-cream in original wrappers, soft ice-cream, frozen yoghurt and sundae, etc..

In the production of frozen confection, heat treatment, most commonly pasteurization, is applied to minimize microbiological hazards. During pasteurization, the mixture of ingredients is kept at a temperature of about 70°C for 10-30 minutes. As a result, pathogens and spoilage organisms can be effectively reduced without causing undesirable changes to taste, texture or appearance of the food. After heat treatment, the products should be kept at low temperature to prevent microbial growth at the subsequent storage. Rapid cooling following heat treatment is most desirable to minimize the duration that the food is being placed within the danger zone (4-63°C).

After heat treatment, contamination by pathogens in the environment or other food is possible at any point during processing, packaging, storage, delivery and retailing. Therefore, the manufacturer should apply appropriate preventive measure to ensure their products are safe for consumption. The following are general advice to the trade for manufacturing frozen confections:

Raw materials / ingredients

- Obtain raw materials and ingredients from reputable sources.
- Inspect raw materials, ingredients, and documents before acceptance to ensure that:
 - there is no sign or indication of contamination or damage to raw materials and ingredients;
 - chilled/frozen raw materials/ingredients have arrived at proper storage temperatures (e.g. frozen items: at -18°C or below; chilled item: at 0-4°C) and are free from observable evidence of temperature abuse.

- Use the ingredients before their expiry dates.
- Keep documentation of raw materials and ingredients.

Food hygiene

- Avoid to use high-risk food ingredients, such as raw or improperly
 pasteurized milk and egg, unless proper heat treatment are in place for them.
- Handle ingredients and final products in a way that spoilage, contamination and damage can be prevented.
- Store ingredients and final products at proper temperature;
 - Frozen item: -18*C or below;
 - Chilled item: 0-4°C.
- Check the temperature of transport and the temperature of equipment, like refrigerators, freezers and vending machines, regularly.
- Maintain a first-in-first-out principle to avoid prolonged storage which affects the freshness and safety of frozen confections.
- For hard ice-cream: discard the defrosted products and do not re-freeze melted products.
- For soft ice-cream: drain off and discard the leftover of soft ice-cream in the vending machines daily.

Environmental hygiene

- Defrost the refrigerator and freezer regularly to maintain the correct temperature.
- Use approved disinfectants for sanitizing the utensils and equipment for adequate cleaning.
- Clean and sanitize the equipment and refrigerators daily.
- Arrange regular cleansing of vending machines with the supplier.
- Clean and sanitize utensils before and after use.

Personal hygiene

- Wash hand thoroughly with soap and water before and after handling food.
- Wear clean clothing.
- Cover open wounds and septic sores on hands and arms with water-proof dressings.
- Stop food handling if suffering from sore throat or gastrointestinal disturbances, like diarrhoea and vomiting.

Food safety management

- Establish and maintain a preventive food safety management system to ensure that effective control measures are in place.
- Provide regular training to food handlers on following aspects:
 - Operation of equipment;
 - Hygienic practices;

For related information, please contact the Communication Resource Unit

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