



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 31646-2018

**National food safety standard - Hygienic Regulation for
Production and Operation of Frozen Foods**

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1 Scope

This Standard specifies the basic requirements and management guidelines for the places, facilities, equipment and personnel during the procuring, processing, packaging, storing, transporting and selling periods of the quick-frozen food raw materials.

This Standard is applicable to the quick-frozen foods; and inapplicable to the frozen drinks.

2 Terms and Definitions

The following terms and definitions and those ones stipulated in GB 14881-2013 are applicable to this document.

2.1 Quick-frozen

The freezing method that makes the product quickly pass through its maximum ice-crystal area; and finish the processing technology, when its center temperature reaches -18°C.

2.2 Quick-frozen food

The food that is produced by a quick-freezing process, and enters into the market under the cold chain conditions.

3 Site Selection and Plant Environment

It shall conform to the relevant provisions of Clause 3 in GB 14881-2013.

4.1 Design and layout

6 Hygienic Management

6.1 Hygienic management system It shall conform to the provisions of 6.1 in GB 14881-2013.

6.2 Hygienic management of factory and facilities It shall conform to the provisions of 6.2 in GB 14881-2013.

6.3 Health management and hygienic requirements for the food processing personnel It shall conform to the provisions of 6.3 in GB 14881-2013.

6.4 Pest control It shall conform to the provisions of 6.4 in GB 14881-2013.

6.5 Waste treatment It shall conform to the provisions of 6.5 in GB 14881-2013.

6.6 Workwear management

6.6.1 It shall conform to the relevant provisions of 6.6 in GB 14881-2013.

6.6.2 The workwear in all zones shall be cleaned and disinfected regularly to meet the hygienic requirements of each zone.

7 Food Ingredients, Food Additives and Food Related Products

7.1 General requirements It shall conform to the relevant provisions of 7.1 in GB 14881-2013.

7.2 Food ingredients

7.2.1 The food ingredients shall conform to the relevant provisions of 7.2 in GB 14881-2013.

7.2.2 The ingredients with special requirements for the storage environment shall take effective measures to monitor the temperature and humidity of the storage environment.

8.2 Microbial contamination control

8.2.1 It shall conform to the relevant provisions of 8.2 in GB 14881-2013.

8.2.2 According to the characteristics of the frozen food produced, determine the key links

of the microbial monitoring in the environment and production process; especially the processing of the quick-frozen cooked food, which shall be monitored as per the requirements of Appendix A; if necessary, establish the pathogen monitoring procedure during the food processing process, which include pathogen monitoring for the production environment, and pathogen monitoring for the process products.

8.2.3 When there is an abnormality of the monitoring indicators in the end of production line of quick-frozen cooked food, cause shall be found immediately; such as increase the sampling frequency of environment microbial monitoring or increase the sampling points; and take appropriate corrective measures.

8.3 Control of chemical pollution It shall conform to the relevant provisions of 8.3 in GB 14881-2013.

8.4 Control of physical pollution It shall conform to the relevant provisions of 8.4 in GB 14881-2013.

8.5 Package

8.5.1 It shall conform to the relevant provisions of 8.5 in GB 14881-2013.

8.5.2 The packaging operation of the quick-frozen product shall be carried out in an environment where the temperature can be controlled.

8.5.3 The packaging section shall be established metal detector, and keep valid.

9 Inspection It shall conform to the relevant provisions of Clause 9 of GB 14881-2013.

10 Storage and Transportation of Food

10.1 General requirements It shall conform to the relevant provisions of Clause 10 in GB 14881-2013; Clause 3 and 5 in GB 31621-2014.

10.2 Storage temperature and working time; ensure the product temperature shall be no greater than -12°C; the working environment shall ensure the hygienic conditions. If there is no closed loading/unloading port, then the transportation vehicle door shall be kept open and close at any required time.

10.3.7 When products are loaded/unloaded, the cargo shall be piled up tightly; there shall be gap around the wall to keep air circulation.

10.3.8 The maximum temperature of the products during the transporting process shall be no greater than -12°C; however, after loading/unloading, it shall be reduced to -18°C or below as soon as possible. The products with special temperature requirements shall be implemented as agreed by both parties.

11 Product Recall Management It shall conform to the relevant provisions of Clause 11 in GB 14881-2013.

12 Training It shall conform to the relevant provisions of Clause 12 in GB 14881-2013.

13 Management System and Personnel It shall conform to the relevant provisions of Clause 13 in GB 14881-2013.

14 Record and Document Management

14.1 It shall conform to the relevant provisions of Clause 14 in GB 14881-2013.

14.2 For the key processes and links that have clear temperature requirements, the appropriate monitoring frequency shall be determined and recorded.

14.3 The document management system shall be established to effectively manage the documents and ensure that the documents used in the relevant locations are valid.

14.4 The hygienic regulation management system and measures that enterprises need to formulate shall be clearly defined; and form effective document to implement.

ingredients procurement, acceptance and management; safety management during the production process; storage management; equipment and facilities management;

non-conforming product management; inspection management; product traceability and recall system; hygienic management (pest control, personnel hygiene, equipment