



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

GB 31651-2021

**National food safety standard - Hygienic specifications for
centralized disinfection of tableware**

Issued on: February 22, 2021

Implemented on: February 22, 2022

Issued by: NHC; SAMR

Table of Contents

1 Scope	3
2 Terms and Definitions	3
3 Site Selection and Plant Environment	3
4 Plant and Workshop	4
5 Facilities and Equipment	6
6 Hygiene Management	10
7 Requirements for Materials	12

1 Scope

This Standard specifies the requirements for materials during the centralized disinfection of tableware (drinkware), and the basic requirements and management guidelines for sites, facilities and personnel in the recycling, cleaning, disinfection, drying, packaging, storage and transportation of tableware (drinkware).

This Standard is applicable to the centralized cleaning and disinfection activities of tableware (drinkware) of service organizations for centralized disinfection of tableware (drinkware).

2.1 Tableware (drinkware)

Tableware (drinkware), which is also known as eating and drinking utensils, refers to the dining tools provided by the catering service provider to the diners. It includes bowls, chopsticks, cups, plates, spoons, knives and forks, etc.

2.2 Service Organizations for Centralized Disinfection of Tableware

(drinkware)

Service organizations for centralized disinfection of tableware (drinkware) refers to operators that collect, clean, disinfect, dry, pack and distribute the tableware (drinkware) of the catering service provider.

3.1.1 Areas that have obvious pollution to the plant area should not be chosen. If there

is an obvious adverse effect on food safety and food edibility, which cannot be improved through measures, then, the establishment of a plant at that location shall be avoided.

3.1.2 The plant area shall not choose a location where hazard wastes, dusts, hazardous gases, radioactive substances and other diffusive pollution sources cannot be effectively eliminated.

5.1.2.2 At the entrance of the water drainage system, a floor drain with a water seal shall be installed to prevent solid wastes from entering and foul gas from escaping.

The outlet of the drainage system shall be equipped with an anti-rodent device and a device to intercept food residue and broken tableware.

5.1.2.3 The flow direction of indoor water drainage shall be from areas with high cleanliness requirements to areas with low cleanliness requirements, and there shall be a design to prevent backflow.

5.1.3 Cleaning and disinfection facilities The packaging room of finished products shall be equipped with air disinfection facilities, such as: ultraviolet germicidal lamps and air disinfectors, etc. The air disinfection facilities shall comply with the relevant national regulations.

5.1.4 Waste storage and disposal facilities

5.1.4.1 Temporary storage facilities for food residues and broken tableware (drinkware) shall be set up at appropriate locations.

5.1.4.2 Special-purpose containers that are reasonably structured, leakage-proof, easy to clean and closeable shall be separately allocated for the storage of food residues and broken tableware (drinkware). The special-purpose containers shall be clearly marked.

5.1.5 Personal hygiene facilities

5.1.5.1 At the entrance of the production site or production workshop, dressing rooms shall be set up. The dressing room shall be equipped with lockers that match the number of personnel on the same shift. The dressing room shall be equipped with shoe-changing (wearing shoe covers) facilities and air disinfection facilities, such as:

ultraviolet germicidal lamps and air disinfectors, etc. At the entrance to the packaging room, secondary dressing rooms shall be set up, as well as facilities for hand washing with running-water, drying and disinfection.

5.1.5.2 Toilets shall be set up in accordance with the demands. The toilets should be set outside the production site or workshop area, or below the end process. The water drainage shall be in the same direction as the drainage flow at the end of the production.

The toilets shall be in the closed water-flushing type, and the structure, facilities and internal materials shall be easy to keep clean and free of odor. Hand washing and disinfection facilities shall be set up in an appropriate place in the toilets. The toilets shall not be directly connected with the production site or production workshop, packaging and

storage areas, and the doors and windows shall be opened in the opposite direction to the production site or production workshop.

5.1.5.3 The faucet switches of the hand washing facilities shall be non-manual, and the number shall match the number of personnel in the packaging room on the same production demands and can ensure that the cleaned and disinfected tableware (drinkware) meet the requirements of GB 14934. Generally, they shall comply with the requirements:

- a) The equipment adopting the physical method of high-temperature disinfection shall at least include: automatic slag removal, tableware (drinkware) sorting and detergent soaking, automatic spray cleaning, high-temperature disinfection dryer and automatic packaging machine;
- b) The equipment adopting the chemical method of soaking and disinfection shall at least include: automatic slag removal, tableware (drinkware) sorting and detergent soaking, detergent soaking disinfection, automatic spray cleaning, drying equipment and automatic packaging machine;
- c) The equipment adopting the mixed method of disinfection shall at least include: automatic slag removal, tableware (drinkware) sorting and detergent soaking, detergent soaking disinfection, automatic spray cleaning, high-temperature disinfection dryer and automatic packaging machine.

5.2.2 The equipment and utensils in contact with the tableware (drinkware) shall be made of non-toxic, odorless, corrosion-resistant, and strong acid and alkali resistant materials that are not easy to fall off and shall be easy to clean and maintain.

5.2.3 All production equipment shall be designed and structured to avoid the mixing of parts, metal scraps, lubricating oil or other pollution factors into the tableware (drinkware), and shall be easy to clean and disinfect, and easy to inspect and maintain.

5.2.4 There shall be an exclusive area for the storage of equipment spare parts, so that necessary spare parts can be obtained in time for equipment maintenance; the spare part storage area shall be kept clean and dry.

5.2.5 The production equipment shall be regularly maintained and verified. The operation of equipment installation, repair and maintenance shall not affect the hygienic quality of the product. The equipment shall be verified and confirmed to ensure that the various properties can satisfy the process requirements.

5.2.6 The equipment shall be fixed on the wall or floor without leaving a gap. Or sufficient space shall be retained between the ground and the wall during installation for cleaning and maintenance.

5.2.7 Before each production, check whether the equipment is in normal condition, so as to prevent the situation of affecting the hygienic quality of the product. In case of a fault, the

fault shall be eliminated in time; the time and reasons of the occurrence of the fault, and the product batches that may be affected shall be recorded.

5.2.8 Equipment used for monitoring, control and recording, such as: pressure gauges, thermometers and recorders, shall be regularly calibrated and maintained.

6.4.1.2 The operating personnel in direct contact with the tableware (drinkware) shall receive annual health examinations and obtain a health certificate. Before taking up the job, they shall receive hygiene trainings (including production hygiene, personal hygiene, and relevant standards and norms).

6.4.1.3 If the operating personnel in direct contact with the tableware (drinkware) suffer from diseases that may hinder food safety, they shall be adjusted to other positions that do not affect the hygienic quality of the tableware (drinkware).

6.4.2 Hygiene requirements for operating personnel in direct contact with tableware (drinkware)

6.4.2.1 The operating personnel entering the workshop shall wear clean work clothes, and wash hands and disinfect as required. The hair shall be hidden in the work cap or restrained by a hairnet. The operation area of the packaging room shall be managed by special personnel, and unauthorized personnel shall be restricted from entering.

6.4.2.2 The operating personnel in direct contact with tableware (drinkware) in the packaging room shall wear work clothes (or disposable work clothes) that comply with the hygiene requirements of the area; wear caps (or hoods), masks and work shoes (or shoe covers). The work clothes and work shoes used in the packaging room cannot be worn outside the packaging room.

6.4.2.3 The operating personnel in direct contact with tableware (drinkware) shall go through procedures of clothes changing, hand cleaning and disinfection before entering the operation area of the packaging room. After using the toilet, contacting items that may contaminate the tableware (drinkware), or engaging in other activities unrelated to the cleaning and disinfection of the tableware (drinkware), and before re-engaging in the cleaning and disinfection activities of the tableware (drinkware), the operating personnel shall wash and disinfect their hands.

6.5 Pest Control

6.5.1 Pest control measures shall be formulated and implemented, and regularly checked. The production workshops and warehouses shall take effective measures (such as: gauze curtains, gauze nets, rat guards, fly-proof lights and wind curtains, etc.)

to prevent the intrusion of rodents and insects.

6.5.2 When using physical, chemical or biological agents for processing, they shall not contaminate the tableware (drinkware), equipment, tools and packaging materials.