HACCP Food Safety Control Process for Reusable Plastic Tableware

To strictly control the quality of reusable plastic tableware, comprehensively prevent food safety risks throughout the production process, and protect consumers' safety, our company has established a standardized full-chain food safety management system in strict accordance with ISO22000:2018 Food Safety Management System and HACCP (Hazard Analysis and Critical Control Point) system requirements. This public document objectively displays the full-process safety control standards and implementation specifications of reusable plastic tableware from raw material warehousing and production processing to finished product delivery.

I. Overview of HACCP Control System

1. Control Objectives

To fully identify and analyze physical, chemical and biological food safety hazards in the entire production process of reusable plastic tableware, clarify risk control points at each link, establish standardized risk prevention, control and correction mechanisms, control all types of food safety hazards within acceptable levels, ensure product safety and compliance from the source, and guarantee all finished products meet national food safety standards.

2. Scope of Application

This HACCP control system covers the entire production and operation process of our licensed reusable plastic tableware, including raw material procurement and acceptance, warehousing and storage, production and processing, assembly and disinfection, packaging and warehousing, and finished product delivery.

3. Core Terminology Definition (Public Version)

Critical Control Point (CCP): A key process node in production where targeted control measures can effectively prevent, eliminate food safety hazards or reduce risks to compliant and acceptable levels.

Critical Limit (CL): The critical technical indicator that distinguishes qualified and unqualified product quality and food safety status, serving as the core judgment standard for each control process.

Monitoring: Planned and continuous observation and measurement of risk control points and key control parameters to ensure the production process is always under control.

Corrective Action: Rectification, disposal and prevention measures taken immediately when process control indicators deviate from critical limits and potential risks occur.

Verification: Procedures including inspection, sampling and auditing to confirm the effective implementation of HACCP control processes and the scientific applicability of control standards.

II. Food Safety Management Organization and Responsibilities

Our company has established a professional food safety team covering management, production, administration and sales departments with clear division of responsibilities. The team ensures the normalized and effective operation of the HACCP system and fully implements the main responsibility for food safety.

1. Management (General Manager)

Overall responsible for the overall planning, implementation and supervision of the company's food safety and HACCP system; formulates food safety management policies; approves system documents, training plans and special business contracts; guarantees human, material and site resources required for system operation; takes full responsibility for product food safety and coordinates the disposal of major unqualified quality issues.

2. Production Department (HACCP Team Leader)

Coordinates daily work of the food safety team and organizes company-wide food safety special training; responsible for full-production hazard identification, risk assessment, process flow verification and critical control point determination; leads the implementation, internal audit and effectiveness verification of the HACCP system, and handles external affairs related to food safety.

3. Administration Department (Team Member)

Responsible for the management and filing of food safety system documents, formulates and implements company-wide food safety training plans to ensure standardized system documents and normalized training implementation.

4. Sales Department (Team Member)

Responsible for supplier qualification review, raw material traceability control and certificate retention; undertakes customer food safety complaint handling, product feedback collection and product recall management to form a closed-loop terminal food safety control system.

III. Safety Standards for Raw Materials, Auxiliaries and Packaging Materials

All raw materials, auxiliaries and packaging materials of our company strictly comply with **GB 4806.7-2023 National Food Safety Standard for Food Contact Plastic Materials and Products** to eliminate food safety risks from the source.

1. Core Production Raw Materials (PP, PC, ABS Resin)

The raw materials are milky white or translucent pure particles without impurities and peculiar odors. Strict physical and chemical indicators are implemented: density 0.90~0.91g/cm³, total migration ≤10mg/dm², potassium permanganate consumption ≤10mg/kg, heavy metal (Pb) ≤1mg/kg, negative decolorization test, with no illegal additives or processing aids. Raw materials are stored in cool and dry conditions at room temperature with rainproof, sunproof, antifouling and explosion-proof measures, and are prohibited from co-storage with toxic and harmful substances.

2. Plastic Color Masterbatch

Food-grade special color masterbatch in pure granular form without impurities and peculiar odors. All physical and chemical indicators fully meet national standards, including total migration, potassium permanganate consumption, heavy metal content and negative decolorization test. No harmful additives are added, which is suitable for food-contact plastic product production. The storage standards are consistent with core raw materials.

3. Composite Film & Bag Packaging Materials

The packaging materials have uniform color, no peculiar odor and no contaminants. The soaking solution shows no turbidity, precipitation, peculiar odor or other deterioration. All physical and chemical indicators comply with national standard limits with no biological hazards. Delivered in sealed cartons and stored in cool, ventilated and dust-proof environments. No secondary treatment is required before use to avoid packaging contamination risks.

IV. Finished Product Quality Standards

Our reusable plastic tableware is produced in Anhui Province with food-grade raw materials via injection molding process under full compliance and strict inspection. The core finished product standards are as follows:

1. **Physical Quality**: Uniform thickness and color, flat end without burrs and gaps, smooth and clean internal and external surfaces, free of impurities, holes, damages, bubbles, scratches and other defects;

2. **Physical & Chemical Safety**: Lead (Pb) content ≤1mg/kg, potassium permanganate consumption ≤10mg/kg; all food contact safety indicators comply with national mandatory standards;

3. **Storage & Transportation**: Stored in dark, cool, ventilated and dry environments, prohibited from co-storage with toxic, harmful and odorous articles; transported by special vehicles with full sunproof, rainproof and anti-pollution measures, no mixed loading of prohibited articles;

4. **Shelf Life & Labeling**: Product shelf life is 18 months. Each batch is clearly labeled with manufacturer name, address, production date, shelf life, usage and storage instructions. The products contain no allergens and are suitable for food holding and serving.

V. Production Process and Standardized Control

1. Core Production Process

Raw Material Acceptance → Standardized Warehousing → Injection Molding (Trimming)

→ Semi-finished Product Assembly → Disinfection & Sterilization → Finished Product Packaging → Finished Product Warehousing → Order Delivery

2. Standardized Control Specifications for Each Process

Raw Material Acceptance: All incoming raw materials must be accompanied by supplier qualification certificates and inspection reports. Suppliers shall provide annual third-party authoritative test reports. Our company conducts strict batch-by-batch inspection to prevent unqualified raw materials from warehousing.

Raw Material Storage: The warehouse is kept dry, ventilated and clean with neatly classified materials. Complete rodent-proof, insect-proof and dust-proof measures are implemented with clear material identification and regular risk inspection.

Injection Molding & Trimming: Operate in strict accordance with injection molding specifications, precisely controlling core process parameters including molding temperature, pressure and time. Waste materials and leftover materials generated during production are collected and disposed of in a standardized manner to avoid product contamination by impurities and oil stains.

Assembly Process: Standardize personnel operation throughout the process, strictly control semi-finished product assembly to prevent impurity mixing and ensure qualified product molding and cleanliness.

Disinfection & Packaging: Finished products undergo standardized disinfection treatment. Qualified products are packaged in standard specifications with accurate quantity and neat arrangement to avoid manual contamination and impurity mixing.

Finished Product Storage: Qualified finished products are stored in designated zones with standardized stacking. Persistently implement warehouse sanitation, pest control and temperature & humidity control measures with regular finished product inspection.

Finished Product Delivery: Inspect the sanitation of transportation vehicles before delivery, monitor the whole loading process, standardize loading and seal the containers to prevent product contamination, damage and dumping during transportation.

VI. Full-process Hazard Analysis and Risk Control

Our company conducts comprehensive hazard identification throughout the production process, focusing on physical, chemical and biological food safety risks, establishes

targeted prevention and control mechanisms, focuses on significant hazards, and realizes advanced risk prevention and full-process controllability.

1. Raw Material Acceptance (Core Control Link OPRP1)

Potential Risks: Physical foreign matters such as metal and sediment mixed in raw materials; chemical risks such as excessive heavy metals and total migration, which directly affect food safety.

Control Measures: Conduct package-by-package visual inspection to eliminate physical impurities; implement supplier annual review system, collect annual third-party authoritative test reports and conduct independent sampling inspection when necessary to ensure 100% compliance of raw material physical and chemical indicators. Raw materials without qualified test certificates will be rejected.

2. Warehousing Link

Potential Risks: Product contamination by insects and dust caused by improper storage environment and inadequate protection measures.

Control Measures: Implement strict Good Hygiene Practices (GHP), maintain warehouse sanitation regularly, implement full pest control, dust prevention, ventilation and drying measures, and conduct regular risk inspection.

3. Production, Assembly and Packaging Links

Potential Risks: Product contamination by oil stains and impurities caused by inadequate equipment cleaning and non-standard personnel operation.

Control Measures: Implement regular workshop equipment cleaning and disinfection as well as personnel hygiene management system, strictly enforce standardized operating procedures, and avoid secondary processing pollution via GHP standardized control.

4. Finished Product Delivery Link

Potential Risks: Damaged packaging and damp product contamination caused by handling and transportation.

Control Measures: Standardize staff handling operation specifications, sign food safety

transportation agreements with logistics companies, inspect vehicle sanitation, and standardize the whole loading and transportation process.

VII. Core Risk Control and Verification Mechanism

Targeting core significant chemical hazards of raw materials, our company has established an exclusive OPRP control mechanism with standardized control criteria, monitoring methods, corrective actions and verification procedures to form closed-loop management:

1. **Control Criteria**: Core safety indicators such as heavy metals and total migration of all production raw materials must comply with national standards. Suppliers shall provide valid annual third-party test reports, and the company conducts independent sampling review;

2. **Daily Monitoring**: Raw material inspectors verify batch-by-batch qualification certificates and test reports, file and retain all traceability documents;

3. **Corrective Actions**: Reject raw materials without qualified test reports or unqualified indicators, and prohibit unqualified raw materials from production;

4. **Regular Verification**: Review raw material incoming inspection records regularly, conduct unscheduled assessment of supplier qualification and supply capacity, carry out normalized sampling inspection of raw material safety indicators, and continuously verify the effectiveness and compliance of the control system.

VIII. Implementation Guarantee of Control System

Our company strictly abides by food safety laws and regulations, takes ISO22000 and HACCP system standards as the core guidelines, and establishes a food safety management mechanism of "full participation, full-process control, full traceability and continuous improvement". We implement food safety responsibilities throughout raw material traceability, production control, finished product inspection, warehousing transportation and after-sales traceability, carry out normalized staff food safety training and system internal audit and process optimization, continuously ensure the safety, compliance and high quality of reusable plastic tableware, and effectively protect the legitimate rights and interests of distributors and end consumers.