



DRAFT TANZANIA STANDARD

Food processing units — Infant and child foods — General hygiene requirements

Drafts for Stakeholders Comments

TANZANIA BUREAU OF STANDARDS

AFDC 6 (3975) DTZS
National Foreword

This Tanzania Standard was published under the authority of the Board of Directors of Tanzania Bureau of Standards.

Tanzania Bureau of Standards (TBS) is the statutory national standards body for Tanzania established under the Standards Act No. 3 of 1975, which was amended by Act No. 1 of 1977 and subsequently repealed and replaced by the Standards Act No. 2 of 2009.

Tanzania Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. The Technical Committees work under the supervision of Divisional (sectoral) Committees. The Standards are developed and finalized in accordance with the Guide and Procedure for Development of Standards.

Tanzania Standards are subject to review, to keep pace with technological advances. Users of the Tanzania Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

This Tanzania Standard was developed under the supervision of the Agriculture and Food Divisional Standards Committee (AFDC) of TBS. The Technical Committee responsible for the standard is Nutrition and Foods for Special Dietary Uses Technical Committee (AFDC06).

The reporting of the result of a test or analysis made in accordance with this Tanzania Standard, if the final value, observed or calculated is to be rounded off, shall be done in accordance with TZS 4 (see Clause 2).

Food Processing units – Infants and Child food – General Hygiene Requirements

0 Foreword

Infants and children comprise an age group which is highly sensitive to abnormal composition and change in their diets. Infants are at high risk due to immature immune system. To ensure high quality and safety of foods intended for infants and children feeding, stringent hygienic conditions should be observed in all handling procedures.

This code of hygiene covers the hygienic practices required in the handling of foods for infants and children, and its an adjunct to TZS 109.

In the preparation of this Tanzania Standard, assistance was derived from; CXC 66-2008 - Code of Hygienic Practice for Powdered Formulae for Infants and Young Children.

This second edition cancels and replaces the first edition (TZS 184: 1984) which has been technically revised.

1 Scope

This code of practice provides a framework of hygienic practices for producing safe and suitable infants and children food for human consumption.

This code covers Good Manufacturing Practices (GMPs) and Good Hygiene Practices (GHPs) to be implemented in production (including primary production), processing, manufacturing, preparation, packaging, storage, distribution, retail, food service operation and transport of food.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

TZS 4, Rounding off numerical values

TZS 109, Food processing units – Code of hygiene

TZS 789, Drinking (potable) water – Specification

TZS 181, Infants and children foods – Microbiological – Specification

TZS 1770, Hazard analysis and critical control point (HACCP) system — Requirements for any organization in the food chain

CXS 192, General Standard for Food Additives

3 Terms and definitions

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For the purpose of this document the following terms and definitions shall apply:

3.1

infant

person not more than 12 months of age.

3.2

children

person from the age of more than 12 months up to the age of three years.

3.3

cleaning

removal of soil, food residues, dirt, grease or other objectionable matter

3.4

competent authority

government authority or official body authorized by the government that is responsible for the setting of regulatory food safety requirements and/or for the organization of official controls including enforcement

3.5

contaminant

biological, chemical or physical agent, foreign matter or other substances not intentionally added to food that may compromise food safety or suitability

3.6

Food Business Operator (FBO)

entity responsible for operating a business at any step in the food chain

3.7

food handler

person who directly handles packaged or unpackaged food, equipment and utensils used for food, or surfaces that come into contact with food and that is expected, therefore, to comply with food hygiene requirements

3.8

food hygiene

all conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain

3.9

food safety

assurance that food will not cause adverse health effects to the consumer when it is prepared and/or eaten according to its intended use

3.10

food suitability

assurance that food is acceptable for human consumption according to its intended use

3.11

Good Manufacturing Practices (GMPs) and Good Hygiene Practices (GHPs)

fundamental measures and conditions applied at any step within the food chain to provide safe and suitable food

3.12

disinfection

the reduction of the number of micro-organisms to a level that will not lead to harmful contamination of food, without adversely affecting the food by means of hygienically satisfactory chemical agents and/or physical methods.

3.13

edible product

product fit for human consumption.

3.14

4

establishment

any building(s) or area(s) in which food is handled after harvesting and the surroundings under the control of the same management.

3.15

hermetically sealed containers

containers which are designed and intended to protect the contents against the entry of micro-organisms during and after heat processing.

3.16

low-acid food

any food other than alcoholic beverages, where any component has a pH value greater than 4.6 after heat processing.

3.17

packaging material

any containers such as cans, bottles, cartons, boxes, cases and sacks, or wrapping and covering material such as foil, film, metal, paper, wax paper and cloth.

3.18

potable water

water that is clean and wholesome at the point of usage in accordance with TZS 789.

3.19

protective clothing

special garments intended to prevent the contamination of food and used as outer wear by persons in an establishment and include head coverings and footwear.

3.20

food unfit for human consumption

food that would normally be edible but is inedible because of disease, decomposition or any other reason.

4 Requirements

4.1 Site

Establishment shall be in areas which are free from objectionable odors, smoke, dust or other contaminants and are not subjected to floods.

4.2 Site Infrastructure

Roadways and areas serving an establishment and which are within its boundaries or in its immediate vicinity shall have paved surface suitable for wheeled traffic. There shall be adequate drainage, and provision shall be made to allow for cleaning.

5 BUILDINGS

5.1 Construction

Construction of buildings shall be of permanent nature and of sound construction and maintained in good repair. Construction should be such that it provides adequate working space for the performance of all operations.

5.2 Design

5.2.1

Buildings should be designed so that they permit easy and adequate cleaning and/or facilitate proper supervision of food hygiene.

5.2.2

Buildings shall be designed to prevent the entrance and harboring of pests and the entry of environmental contamination such as smoke, dust, etc.

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5.2.3

Buildings shall be designed to provide separation between those operations which may cause cross-contamination, by partition, location or other effective means. Separate rooms or areas shall be provided for unpacking, washing or peeling of raw materials, as the case may be.

5.2.4

The buildings shall be so designed as to facilitate hygienic handling by means of regulated flow in the process from the arrival of the raw materials at the premises to the finished product, and shall provide appropriate temperature conditions for the process and the product. Where appropriate, separate rooms or areas equipped for the required purpose, shall be provided for cooking or sterilization of food. Where cooling is required, the establishment shall provide sufficient capacity in cooling and freezer space to handle maximum product flow.

5.3 Floors

Floors in food handling areas and where otherwise appropriate shall be of waterproof, non-absorbent, washable, non-slip and non-toxic materials, without crevices, and shall be easy to clean and disinfect. Where appropriate floors should slope sufficiently for liquids to drain to trapped outlets.

5.4 Walls

Where appropriate walls shall be of water proof, non-absorbent, washable and non-toxic materials and shall be light colored. Up to a height appropriate for the operation, they shall be smooth and without crevices and shall be easy to clean and disinfect. Angles between walls, between walls and floor and between walls and ceilings shall be sealed and covered to facilitate cleaning.

5.5 Ceilings

Ceilings shall be designed, constructed and finished so as to prevent the accumulation of dirt and minimize condensation, mold development and flaking, and shall be easy to clean.

5.6 Windows

Windows and other openings shall be so constructed as to avoid accumulation of dirt and those which open shall be fitted with screens that are easily removable for cleaning and kept in good repair. Internal windowsills, if present, shall be sloped to prevent use as shelves.

5.7 Doors

Doors shall have smooth, non-absorbent surfaces, and where appropriate, be self closing and close fitting.

5.8 Stairs, lift cages and auxiliary structures

Stairs, liftcages and auxiliary structures such as platforms, ladders, chutes, shall be so situated and constructed as not to cause contamination of food. Chutes shall be constructed with inspection and cleaning hatches.

5.9 Overhead structures

Overhead structures and fittings in the food handling areas shall be installed in such a manner as to avoid contamination directly or indirectly of food and raw materials by condensation and drip, and shall not hamper cleaning operations. They should be insulated where appropriate and be so designed and finished as to prevent the accumulation of dirt and to minimize condensation, mould development and flaking. They shall be easy to clean.

5.10 Access control and layout

Access control and layout of an establishment not in its own building or buildings, shall be to prevent unauthorized persons from entering the establishment.

5.11 Materials

Materials which cannot be adequately cleaned and disinfected such as wood shall be avoided, unless their use will clearly not be a source of contamination.

6 SANITARY FACILITIES

6.1 Water supplies

An ample supply of potable water under adequate pressure and of suitable temperature shall be available with adequate facilities for its storage, where necessary, and distribution, and with adequate protection against contamination. An adequate supply of hot water not less than +82°C shall be available at all times during the working hours.

6.2 ice

Ice shall be made from water of potable quality and shall be manufactured, handled, stored and used, so as to protect it from contamination.

6.3 steam

Steam used in direct contact with food or food contact surfaces shall contain no substances which may be hazardous to health or may contaminate the food.

6.4 non-potable water

Non-potable water supplies shall be carried in separate lines, identified preferably by colour and used for steam production, refrigeration, fire control and other similar purposes not connected to food, with no cross-connection with or back siphonage into system carrying potable water supplies.

6.5 Effluent and waste disposal

Establishments shall have an efficient effluent waste disposal system which shall at all times be maintained in good repair. All effluent lines (including sewer systems) shall be large enough to carry peak loads and shall be constructed to avoid contamination of potable water supplies.

6.6 Changing facilities and toilets

Adequate and conveniently located changing facilities and toilets shall be provided in all establishments. Toilets shall be so designed as to ensure hygienic removal of waste. These areas shall be well lit, ventilated and, where appropriate, heated and should not open directly into food handling areas. Handwashing facilities with warm or hot and cold water and with suitable hand-cleaning preparations and hygienic means of drying hands shall be provided near toilets and in such a position that the employee must pass them when returning to the processing area. Where hot and cold water is available, mixing taps shall be provided. Where paper towels are used, a sufficient number of dispensers and receptacles shall be provided adjacent to each handwashing facility. Taps shall be of non-hand operable type. Notices shall be posted directing personnel to wash their hands after using the toilets.

6.7 Hand washing facilities in processing area

Adequate and conveniently located facilities for hand washing and drying should be provided, for the use of personnel, especially in areas where unpacked edible material is handled. Appropriate facilities for hand disinfection should be available.

Hot or warm and cold water and hand-cleaning preparations shall be provided. There shall be hygienic means of drying hands. Where paper towels are used, a sufficient number of dispensers and receptacles shall be provided adjacent to each washing facility. Taps of non-hand operable type are recommended. The facilities shall be furnished with waste pipes leading to drains.

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6.8 Disinfection facilities

In all processing areas, whenever the process demands adequate facilities for cleaning and disinfection of working implements and equipment shall be provided. These facilities shall be of the nature of the same way to permit proper cleaning and disinfection. They shall be corrosion-resistant materials. Facilities for cleaning and disinfection shall be fitted with means of supplying hot and cold water in sufficient quantity. The temperature of the hot water shall not be less than +82°C at all times while food is being handled in that part of the establishment.

6.9 Lighting

Adequate natural or artificial lighting shall be provided throughout the establishment. Where appropriate the lighting shall not alter the colours and the intensity shall be not less than:

540 Lux (50 foot candles) at all inspection points or points requiring otherwise close examination.

220 Lux (20 foot candles) in work rooms.

110 Lux (10 foot candles) in other areas.

Light bulbs and fixtures suspended over food materials in any stage of production shall be of a safety type and protected to prevent contamination of food in case of breakage.

6.10 Ventilation

Adequate ventilation shall be provided to prevent excessive heat, steam, condensation and dust and to remove contaminated air. The direction of the air flow shall never be from dirty area to clean area. Ventilation openings shall be provided with screen or another protecting enclosure of non-corrodible material. Screens shall be easily removable for cleaning.

In areas where dry powdered materials are handled, special provisions such as suction hoods or room partitions shall be used to prevent the spreading of dust.

6.11 Facilities for storage of waste and inedible materials

Facilities shall be provided for storage of waste and inedible material prior to removal from the establishment. These facilities should be so designed to prevent access to waste inedible material by pests and to avoid contamination of food, potable water, equipment, buildings or roadways on the premises.

7 EQUIPMENT AND UTENSILS

7.1 Materials

All equipment and utensils used in food handling areas and which may contact food shall be made of materials such as stainless steel which does not transmit toxic substances, odor or taste, is non-absorbent, is resistant to corrosion and is capable of withstanding repeated cleaning and disinfection. Surfaces shall be smooth and free from pits and crevices. The use of wood and other materials which cannot be adequately cleaned and disinfected shall be avoided. The use of different materials in such a way that contact corrosion can occur shall be avoided.

7.2 Sanitary design, construction and installation

7.2.1 All equipment and utensils

Shall be so designed and constructed as to prevent hygienic hazards and permit easy and thorough cleaning and disinfection, and where practicable, be visible for inspection. Fixed equipment shall be installed in such a manner as to permit easy access and thorough cleaning.

7.2.2 Containers for inedible material and waste

Shall be leakproof, constructed of metal or other impervious material, easy to clean or disposable and able to be closed securely.

7.3 Equipment identification

Equipment and utensils used for inedible materials or waste shall be so identified and shall not be used for edible products.

7.4 Tanks and vessels

All surfaces which may come in contact with food shall be visible for inspection and readily accessible for manual cleaning. Bottoms of fixed vessels may be of the cone type or may be flat and inclined at an angle of 3–5° for easy drainage. In either case a drain cock shall be provided at the lowest point. Mixing, blending and homogenizing equipment shall be of a type which does not allow food to come into direct contact with seals and bearings which are often a serious source of contamination.

7.5 Piping

The piping system should be designed so as to permit free flow and prevent the occurrence of blind sections in pipes, joints, valves and gauges. Pipe runs shall be kept as short as possible; right-angled joints shall be avoided, and pipes shall slope to a drainage point with a recommended fall of at least 1 in 120. Cocks, valves and gauges shall be accessible and easily dismantled for inspection and cleaning.

7.6 Pumps

Pumps shall be so designed as to be readily dismantled for cleaning. Shaft seals shall be of the mechanical type and accessible for inspection and maintenance. Bearings shall be located outside the food zone and be of sealed or self-lubricating type.

7.7 Refrigeration equipment

7.7.1 All cold rooms, chill rooms and refrigerated spaces shall be designed and constructed to permit easy cleaning and maintenance and shall be kept in good repair.

7.7.2 All refrigerated spaces shall be equipped with temperature measurement or recording devices.

8 HYGIENE REQUIREMENTS IN PRODUCTION / HARVESTING AREAS

8.1 Environmental hygiene in areas from which raw materials are derived

8.1.1 Unsuitable growing or harvesting areas

Food shall not be grown or harvested when the presence of potentially harmful substances will lead to an unacceptable level of such substances in the food.

8.1.2 Protection from contamination by wastes

8.1.2.1 Raw food materials shall be protected from contamination by human, animal, domestic, industrial and agricultural wastes which may present a hazard to health. Adequate precautions shall be taken to ensure that these wastes are not used and are not disposed of in a manner which may constitute a public health hazard through the food.

8.1.2.2 Arrangements for the disposal of domestic and industrial wastes in areas from which raw materials are derived shall be acceptable to the official agency having jurisdiction.

8.2 Harvesting and production

8.2.1 Techniques

Methods and procedures associated with harvesting and production shall be hygienic, and such as not to constitute a potential health hazard or result in contamination of the product.

8.2.2 Equipment and containers

Equipment and containers used for harvesting and production shall be so constructed and maintained as not to constitute a hazard to health. Containers which are re-used shall be of such material and construction as will permit easy and thorough cleaning. They shall be cleaned and disinfected

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whenever necessary. Containers previously used for toxic materials shall not subsequently be used for holding foods or food ingredients.

8.2.3 Removal of obviously unfit materials

Raw materials which are obviously unfit for human consumption shall be segregated during harvesting and production. Those which cannot be made fit by further processing shall be disposed off in such a place and in such a manner as to avoid contamination of the food and/or water supplies or other food materials.

8.2.4 Protection against contamination and damage

Precautions shall be taken to protect the raw products from being contaminated by pests or by chemical, physical or microbiological contaminants or other objectionable substances. Precautions shall be taken to avoid damage.

8.3 Storage on the place of production/harvesting

Raw materials shall be stored under conditions that will protect against contamination and minimize damage and deterioration.

8.4 Transportation

8.4.1 Conveyances

Conveyances for transporting the harvested crop or raw product from the production area or place of harvest or storage shall be adequate for the purpose intended, and shall be of such material and construction as will permit easy and thorough cleaning. They shall be cleaned and maintained clean and where necessary disinfected.

8.5 Handling procedures

All handling procedures shall be such as will prevent raw materials from being contaminated. Care shall be taken to prevent spoilage, to protect against contamination and to minimize damage. Special equipment such as refrigeration equipment shall be used if the nature of the product or distances involved so indicate. If ice is used in contact with the product it shall be of the quality required in sub-clause 6.2.

9 Hygiene Requirements in Establishments

9.1 Maintenance

The buildings, equipment, utensils and all other physical facilities of the establishment, including drains, shall be maintained in good repair and in an orderly condition.

As far as practicable, rooms shall be kept free from steam, vapour and surplus water.

9.2 Cleaning and disinfection

9.2.1 Cleaning and disinfection shall meet the requirements of this standard.

9.2.2 To prevent contamination of food, all equipment and utensils shall be cleaned as frequently as necessary and disinfected whenever circumstances demand. They shall also be cleaned and disinfected at the conclusion of each work shift.

9.2.3 Adequate precautions shall be taken to prevent food from being contaminated during cleaning and disinfection of rooms, equipment or utensils by water and detergents or by disinfectants and their solutions. Detergents and disinfectants shall be acceptable to the official agency having jurisdiction. Any residue of these agents on a surface which may come into contact with food shall be removed by thorough rinsing with potable water.

9.2.4 Either immediately after cessation of work for the day or at such other times as may be appropriate, floors, including drains, auxiliary structures and walls of food handling areas shall be thoroughly cleaned.

9.2.5 Changing facilities and toilets shall be kept clean at all times.

9.2.6 Roadways and yards in the immediate vicinity of and serving the premises shall be kept clean.

9.3 Hygiene control programme

A permanent cleaning and disinfection schedule shall be drawn up for each establishment to ensure that all areas are appropriately cleaned and that critical areas, equipment and material are designated for special attention. A single individual who shall preferably be a permanent member of the staff of the establishment and who is independent of production, shall be appointed to be responsible for the cleanliness of the establishment. He/she shall have a thorough understanding of the significance of contamination and the hazards involved. All cleaning personnel shall be well-trained in cleaning techniques. Completion of each task in the cleaning and disinfection schedule shall be signed and dated in an appropriate record.

9.4 By-products

By-products shall be stored in such a manner as to avoid contamination of food. They shall be removed from the working areas as often as necessary and at least daily.

9.5 Storage and disposal of waste

Waste material shall be handled in such a manner as to avoid contamination of food or potable water. Care shall be taken to prevent access to waste by pests. Waste shall be removed from the food handling and other working areas as often as necessary and at least daily.

Immediately after disposal of the waste, receptacles used for storage of the waste and any equipment which has come into contact with the waste shall be cleaned and disinfected. The waste storage area shall also be cleaned and disinfected.

9.6 Exclusion of animals

Animals shall not be allowed in the establishment.

9.7 Pest control

9.7.1 There shall be an effective and continuous programme for the control of pests. Establishments and surrounding areas shall be regularly examined for evidence of infestation.

9.7.2 Should pests gain entrance to the establishment, eradication measures shall be instituted. Control measures involving treatment with chemical, physical or biological agents shall only be undertaken by or under direct supervision of personnel who have a thorough understanding of the potential hazards to health resulting from the use of these agents, including those hazards which may arise from residues retained in the product. Such measures shall only be carried out in accordance with the recommendation of the official agency having jurisdiction, and preferably during non-processing times.

9.7.3 Pesticides shall only be used if other precautionary measures cannot be used effectively. Before pesticides are applied, care shall be taken to safeguard all food, equipment and utensils from contamination. After application, contaminated equipment and utensils shall be thoroughly cleaned to remove residues prior to being used again.

9.8 Storage of hazardous substances

9.8.1 Pesticides or other substances which may represent a hazard to health shall be suitably labelled with a warning about their toxicity and use. They shall be stored in locked rooms or cabinets used only for that purpose, and dispensed and handled only by authorized and properly trained personnel or by persons under strict supervision of trained personnel. Extreme care shall be taken to avoid contamination of food.

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9.8.2 Except when necessary for hygienic or processing purposes, no substance which can contaminate food shall be used or stored in food handling areas.

9.9 Personal effects and clothing

Personal effects and clothing shall not be deposited in food handling areas.

10 HYGIENE PROCESSING REQUIREMENTS

10.1 Raw material requirements in the establishment

Raw materials used for the production of food for infants and children shall, whenever applicable, comply with their appropriate standard or Code of hygiene. If no such standard is available TZS 109 shall apply.

10.1.1 Acceptance

No raw material or ingredient shall be accepted by the establishment if known to contain parasites, micro-organisms, or toxic, decomposed or extraneous substances which will not be reduced to acceptable levels by normal plant procedures or sorting and/or preparation or processing.

Raw materials used for the production of food for infants and children shall not contain pesticide residues or other objectionable substances in a concentration in the final product believed to constitute a health hazard for infants and children.

Raw materials destined for the production of food for infants and children shall be of high hygienic condition.

Food of animal origin shall only be derived from healthy stock.

10.1.2 Inspection and sorting

Raw materials or ingredients shall be inspected and sorted prior to being moved into the processing line, and where necessary, laboratory tests shall be made. Only clean sound raw materials or ingredients shall be used in further processing.

10.1.3 Storage of raw materials and ingredients

Raw materials and ingredients stored on the premises of the establishment shall be maintained under conditions that will prevent spoilage, protect against contamination and minimize damage. Stocks of raw materials and ingredients shall be properly rotated, and shall be stored under cool conditions.

10.2 Prevention of cross-contamination

10.2.1 General remarks

Effective measures shall be taken to prevent contamination of food material by direct or indirect contact with material at an earlier stage of the process.

10.2.2 Personal behaviors

Persons handling raw materials or semi-processed products capable of contaminating end product shall not come into contact with end product unless and until they discard all protective clothing worn by them during the handling of raw materials or semi-processed products which have come into direct contact or have been soiled by raw materials or semi-processed products and they have changed into clean protective clothing.

10.2.3 Hand washing

Hands shall be washed thoroughly between handling products at different stages or processing.

10.2.4 Allergen management

The establishment shall implement and maintain a documented allergen management program to identify, control and declare allergens handled on site. Approved supplier and verified allergen

declaration shall be used for all raw materials. Allergen ingredients shall be clearly labelled, segregated and controlled to prevent cross contamination. Accurate labelling shall be verified at all stages and staff shall receive allergen awareness training. Records should be maintained and the system should be regularly reviewed to ensure compliance and consumer safety.

10.3 Use of water

Potable water as defined in 3.1.17 shall be used in food handling and processing and shall be used in sufficient quantity to ensure the hygienic condition of the food. Re-circulated water used for washing, rinsing or conveying of food shall be treated and maintained in such a condition that no health hazard is presented. Processed water used in direct contact with food shall be potable.

10.4 Processing

10.4.1 Processing shall be carried out under such conditions as will prevent contamination of the food. All operations, including filling, sealing and labelling, shall be carried out under strictly hygienic conditions.

10.4.2 Methods of preservation, processing and packaging shall be such as to prevent contamination and growth of micro-organisms and shall ensure that the product is safe and suitable for human consumption.

10.4.3 Temperature control during processing shall be such as ensuring the destruction of pathogenic micro-organisms and preventing the growth of spoilage organisms.

10.4.4 Where thermal processing is used, adequate time/temperature combinations shall be employed to ensure the safety of the product.

10.5 Packaging

10.5.1 Packaging material shall be clean and shall protect the product from contamination.

10.5.2 Packaging materials and containers shall not transmit to the food any toxic substances, odour or taste and shall be strong enough to withstand the normal conditions of processing, handling and storage.

10.5.3 Filling and sealing of packages shall be carried out in such a way as to avoid contamination of the product.

10.6 Storage and transport of final product

10.6.1 The final product shall be stored under conditions that will prevent contamination and deterioration.

10.6.2 Transport vehicles shall be clean and maintained in good repair and shall provide protection against contamination.

10.7 Sampling and laboratory control procedures

10.7.1 Sampling and testing procedures shall be carried out in accordance with appropriate standards or methods acceptable to the official agency having jurisdiction.

10.7.2 Adequate laboratory control shall be exercised to ensure compliance with microbiological and other requirements applicable to foods for infants and children.

11 Personnel Hygiene

11.1 Medical examination

Persons who come into contact with food in the course of their work should be medically examined prior to employment and thereafter at regular intervals.

11.2 Communicable diseases

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Any person who is known or suspected to be suffering from, or to be a carrier of, a disease likely to be transmitted through food shall not be permitted to work in any food handling area.

11.3 Injuries

Any person who has a cut or wound shall not continue to handle food unless the injury is completely protected by a waterproof covering.

11.4 Personal cleanliness

Food handlers shall maintain a high degree of personal cleanliness and shall, while on duty, wear suitable protective clothing, including head covering and footwear.

11.5 Personal behaviors

Food handlers shall refrain from behaviors which could result in contamination of food, such as eating, smoking, chewing or spitting.

11.6 Hand washing

Food handlers shall wash their hands with potable water and disinfect thoroughly and frequently, particularly after using the toilet, after handling raw materials and whenever necessary to avoid contamination of food.

12 Education and Training

12.1 Personnel involved in food handling shall receive adequate and appropriate training in food hygiene and food handling techniques.

12.2 Training programs should be reviewed and updated periodically.

13 Supervision

13.1 The establishment shall ensure that a qualified person is responsible for the supervision of hygiene in the establishment.

13.2 Supervisory personnel shall have a thorough knowledge of food hygiene principles and practices as laid down in TZS 109 and TZS 1770.

14 Final Products Specifications

14.1 The end product shall be free from pathogenic micro-organisms and shall comply with the microbiological specifications laid down in TZS 181.

14.2 The end product shall be safe and suitable for consumption by infants and children and shall comply with all relevant standards.

