Guideline

Convenience

Version: 01.01.2025

Contents

1 Fundamentals

You can find basic information about the QS scheme, such as how it is organised, the participation conditions, use of QS certification mark and sanction procedures in the **General Regulations Guideline.**

1.1 Scope

The following requirements apply to manufacturers of convenience products who produce products with a low QS content (meat/meat products and fruit/vegetables/potatoes). These include, for example, pizza, lasagne, baked goods, sandwiches and convenience products with a high liquid/pasty content (e.g. delicatessen salads with mayonnaise/dressings) as well as ready meals and menu components. The guideline Convenience applies if the processes for manufacturing the convenience products are not covered by the guideline Processing of meat and meat products and/or the guideline Preparation/Processing fruit, vegetables, potatoes.

⇒ Explanatory notes "Demarcation of the scope of application for composite products"

The scheme participant is responsible for

- compliance with the requirements,
- complete and correct documentation,
- self-assessment,
- the proper and timely implementation of corrective actions
- as well as the correct use of the QS certification mark and labelling of the products.

Scheme participants must comply at all times with the requirements of the QS scheme and always be in a position to demonstrate compliance with said QS requirements. They must ensure compliance not only with the requirements of this guideline and all related documents (*Guideline General Requirements*, *Guideline Certification* and *Paper of incident*) but also with the applicable legal provisions both within the country in which the QS products are produced and stored as well as the country in which they will be marketed by the scheme participant.

2 General requirements

2.1 General scheme requirements

2.1.1 General business data

The following master data is to be recorded in the QS database and always kept up to date:

- Address of the main company and any subsidiary production premises with EU approval numbers
- Company name
- Telephone number, e-mail address of the legal representative, contact person and crisis manager
- Details on the type of plant and its (product- and process-related) operations, e. g. pizza, pasta etc.
- Additional/location-specific information (per database)
- Opening hours

A plant overview must also be drawn up (existing documentation may be used, e.g. QM or HACCP), which contains the following data in addition to the information listed above:

- All production and storage facilities with EU approval numbers (this includes external companies, such as frozen storage; where premises are shared by several companies, all premises belonging to the plant must be identified in an operating plan.)
- Information on existing quality management and audit systems (e. g. ISO 9001, IFS, BRC)
- Appointed laboratories (current address, phone number, e-mail address) and their field of accreditation

Plant overview/QS database

2.1.2 Use of the QS certification mark

Scheme participants are entitled to use the QS certification mark once they have been permitted to do so by QS (via QS scheme agreement). Use of the certification mark is only permitted in accordance with the **Style guide for the QS certification mark**.

⇒ Explanatory notes „Use of the QS certification mark for composite products”

⇒ Style guide for the QS certification mark

Scheme participants may only deliver goods labelled with the QS certification mark on the label or outer packaging if they themselves and the location of the recipient/purchaser of the goods are authorised to deliver in the QS database. Goods labelled with the QS certification mark must be marked in the delivery notes in accordance with the requirements 4.2.2 [K.O.] Labelling of marketed QS products.

In justified individual cases, this may be nonconformity if it can be expected that the reseller will no longer actively advertise and/or market the goods as QS products in his course of business and in contact with his recipients. These goods may not be labelled as QS products in the accompanying documents or it must be clearly stated in the accompanying documents that the reseller may no longer actively advertise the goods as QS products in his course of business and in contact with his recipients.

2.1.3 Incident and crisis management

QS has developed a comprehensive incident and crisis management system that actively supports scheme participants in the event of an incident or crisis. The scheme participants must inform QS immediately and – where a legal obligation exists – also the competent authorities about critical incidents and public product recalls where these are of relevance for the QS scheme.

Critical incidents are events that pose or have the potential to pose a risk to humans, animals, the environment, assets or the QS scheme as a whole.

In particular, if:

- Nonconformities occur in the procurement of goods, in production or marketing that might pose a risk to food or feed safety,
- Preliminary proceedings are initiated due to violation of regulations to secure food safety,
- Investigations are carried out by the media, there are critical reports in the media, or public protests are held on issues of food safety

the scheme participants must inform QS.

All scheme participants must have a template document available for reporting an incident, e.g. the QS paper of incident, so that they can convey all the required information in a targeted manner if an incident should occur. Moreover, all scheme participants must name a crisis officer, and this officer must be reachable at all times. The name of the crisis officer must be entered in the QS database.

A procedure of conduct for incidents and crises must be defined and implemented, as well as verified at regular intervals, at least once a year (approx. every 12 months). It must include the following points:

- Creation of a crisis team
- Emergency call list
- Procedure for product recall and return
- Communication plan
- Customer information

Documentation on incident and crisis management

2.1.4 Disaster concept

The food business operator has created a disaster concept for various disaster scenarios in one or more areas of the company.

In the context of the requirement, a disaster is the sudden occurrence of a failure that presents an immediate risk to:

- Food safety
- Humans
- the environment

and/or leads to the damage or destruction of assets.

A disaster concept/plan must be developed, which, as a minimum:

- takes into account the risks outlined above
- illustrates internal processes
- determines actions
- defines decision-making channels and responsibilities

- ensures the availability of personnel (including outside normal working hours)

Disaster concept

2.1.5 Document handling

A procedure for archiving documentation must be available and applied at the plant. All relevant records must be kept in detail and in full, and – unless longer retention periods are stipulated individually by law – retained for a period of at least two years.

2.1.6 Premises and access regulations

All buildings and production facilities must be protected from unauthorised access and be kept closed. For this reason, access regulations must be defined for the premises. Operating areas in which food is produced or stored may not be accessible to unauthorised persons. External visitors can only access the plant when accompanied, or by permission. All external visitors – except for drivers during loading operations in the designated loading area – must receive instructions prior to entering the operating areas. If external vehicles, e.g. livestock wagons or disposal vehicles, enter the premises, this must be taken into account as part of the risk assessment.

Access regulations

2.1.7 Food safety culture

The food business operator has introduced an appropriate food safety culture as per Reg. (EU) 2021/382 that is commensurate to the type and size of the company. The basic requirements for this are an integral component of QS participation and certification. With the QS participation and a successful certification, the QS participant proves the introduction and implementation of a food safety culture.

⇒ See Explanatory notes "Food safety culture - Implementation of Regulation (EU) 2021/382 in the QS scheme"

The company's aim should be to permanently establish a culture in the sense of a defined food safety ideal that is achieved through conduct training and operational guidelines. This awareness is encouraged and evaluated by the management.

Roles and responsibilities

The food business operator must ensure that the food safety culture is implemented and updated. It may however delegate this task within the company.

Please refer to the following supporting documents:

- Reg. (EU) 2021/382
- Reg. (EC) No. 852/2004
- Explanatory notes "Food safety culture – implementation of Regulation (EU) 2021/382 in the QS scheme"

2.1.8 [K.O.] Conducting self-assessments

Compliance with the QS requirements must be checked. Self-assessments must be carried out regularly. This must be documented at least once a year (approx. every 12 months) using a checklist. Existing control and documentation systems that ensure that the requirements are complied with, can be utilised. The internal controls can be documented both by automatic registration processes (e.g. automatic temperature records) and by manual records (e.g. incoming goods inspection).

The self-assessment can also be outsourced to external companies with the appropriate qualifications.

Self-assessment records, checklists

2.1.9 Completion of corrective actions in the case of nonconformity

Nonconformities that are detected during a self-assessment must be resolved within the defined time frame. Responsibilities must be established.

2.2 HACCP

2.2.1 [K.O.] HACCP concept/Food safety management systems

To comply with food safety standards, the company must create, apply and maintain a hazard control system in accordance with the HACCP principles (**Reg. (EC) No. 852/2004**) in such a way that it is comprehensible to third parties.

The HACCP system is incorporated into the food safety management system based on fundamental hygiene measures, including the codes of Good Hygiene Practice (GHP) and Good Manufacturing Practice (GMP).

The process from incoming goods through to outgoing goods is designed to prevent raw materials, semi-finished products, finished products, packaging materials, machines and any other substances that come into contact with the food from becoming contaminated. The concept ensures that physical, microbiological and/or chemical, allergenic contamination and, if applicable, ionising radiation are minimised or prevented by employing effective, technically feasible measures. The HACCP concept must take into account the goods thawing and temperature regulation processes.

If any HACCP-relevant changes are made to a product or manufacturing process, or to a production, processing, storage or sales stage, the company must review and, if necessary, modify the HACCP concept.

Self-assessment records, checklists

2.2.2 HACCP team

To develop an efficient HACCP concept and the requisite knowledge must be available. The HACCP-Team must be documented in a written form. If required, the HACCP-Team must be trained. In this case records of the training have to be kept.

2.2.3 Product description

A complete description of the product/the article group must be compiled, and the intended purpose must be defined. This must include:

- Composition of the product/the article group
- Physical and chemical structure
- Antimicrobial/Static (high-pressure) treatment
- Packaging
- Shelf life
- Storage conditions
- Distribution channels (e. g. foreign countries/inland, status, loose goods/prepacked, etc.)

Product description

2.2.4 Flow chart

A schematic flow diagram must be prepared. The flow diagram must include all operating processes and product groups.

2.2.5 Hazard analysis

The HACCP concept is based on the determination of hazards that must be avoided, eliminated or reduced to an acceptable level.

2.2.6 Critical control points (CCP)

Critical control points must be defined if control is required, in order to avoid, eliminate or reduce any hazards to an acceptable level.

2.2.7 Limit values for CCP

Limit values for the critical control points must be defined with regard to the avoidance, elimination or reduction of identified hazards.

2.2.8 Monitoring and verification of limit values for CCP

Procedures for monitoring and verifying critical control points must be defined and implemented. These procedures must be applied regularly.

2.2.9 Corrective actions for CCP

Corrective measures must be defined if monitoring shows that a critical control point exceeds the set limit values.

2.2.10 Responsibilities

Responsibilities must be clearly defined in an organigram.

2.2.11 Documentation

Records suited to the type and size of the abattoir in order to verify that the actions outlined in 2.2.1 to 2.2.10 must be implemented.

2.2.12 HACCP verification

The effectiveness of the HACCP concept must be checked once a year (approx. every 12 month). If any HACCP-relevant changes are made to a product or manufacturing process, or to a production, processing, storage or sales stage, the company must review and, if necessary, modify the HACCP concept.

2.3 Good manufacturing and hygiene practice

2.3.1 Water quality

Water – irrespective of its origin or aggregate state – that is used for manufacturing, treating, preserving or distributing foodstuffs, and for cleaning objects and facilities that may come into contact with food as intended, must comply with the latest version of the **German drinking water ordinance (TrinkwV)**. Drinking water must be provided in suitable quantities and may not pose any risk of contamination.

The plant must have a tapping point plan in place. The tapping points must be sampled using a risk-based approach in accordance with the latest version of TrinkwV, depending on the type of drinking water supply (i.e. own water supply system (e.g. own well) or mains supply).

Beyond the legal requirements, the QS scheme requires the water used at the location to be analysed using a purpose-driven approach as part of the plant's self-assessment measures. The goal is to assess the quality of the water as it comes into contact with products, equipment and/or surfaces. As such, any water/ice that is used as an ingredient, to treat food during the manufacturing process or to clean objects and facilities that may come into contact with food as intended, must be sampled **using a risk-based approach in accordance with Purpose C of DIN EN ISO 19458.**

A risk-based sampling plan for analysing drinking water comprises the following information as a minimum:

- Tapping point allocation
- Risk level
- Purpose of the analysis
- Frequency of the analysis
- Reference to analysis parameters and limit values

The type and frequency must be specified in the company's sampling plan.

Tapping point plan

Please refer to the following supporting documents:

- Water quality supporting document
- Regulation (EC) No. 852/2004
- Directive (EU) 2020/2184
- German drinking water ordinance (TrinkwV)
- DIN EN ISO 19458: Water quality: Sampling for microbiological analysis

2.3.2 Cleaning and disinfection

Based on a risk analysis, cleaning and disinfection plans must be drawn up that detail the following:

- Responsibilities
- Used products and their instructions for use
- Areas requiring cleaning or disinfection
- Cleaning intervals
- Recording obligations
- Hazard symbols (if required)

Implementation of the cleaning and disinfection plans must be documented.

Training

The cleaning staff must undergo training that includes first aid measures, cleaning procedures and labelling practices for the cleaning products used. The employees must be aware of the cleaning process as per the cleaning and disinfection plan.

Proof of cleaning and disinfection plans

2.3.3 [K.O.] Microbiological analyses within the plant

In order to guarantee an appropriate standard of hygiene, the effectiveness of cleaning and disinfection measures must be checked within the company:

Requirements in the case of exclusive cleaning/rinsing of the operating system

If the company only cleans/rinses the operating system, a visual cleaning check must be carried out. The result must be documented.

Requirements in the event of disinfection of the operating system

If the company disinfects the plant, regular microbiological tests must be carried out on surfaces in the treatment and processing rooms for monitoring purposes.

Sample collection

To facilitate microbial monitoring of the cleaning and disinfection measures, a risk-based sampling plan is available, which adequately takes into account the physical scale of the business, the complexity of the production processes and the type and quantity of the products. Samples are taken from defined points in line with the internal risk assessment. The inspections are repeated at intervals of at least 4-8 weeks.

Sampling should be carried out before the start of production in areas that have a direct influence on product hygiene (e. g. knives, knife sterilizers). Once selected, sample extraction points should be used on an alternating basis. Sampling must be performed in line with a recognised procedure and defined in a sampling plan.

*In accordance with **Reg. (EC) No. 2073/2005**, food companies producing ready-to-eat foods that may pose a risk to public health as a result of L. monocytogenes must analyse samples from their food processing areas and equipment for L. monocytogenes as part of their sampling plan.*

Sampling and analysis must be carried out by qualified persons and suitable methods must be used. If residual effects of disinfectants are to be expected, the following must be used sampling devices (swab samples) with inhibitors must be used. Furthermore, the requirements of the current version of the regulation on the monitoring of zoonoses and zoonotic agents in food law must be considered.

Assessment

The following species of bacteria must be used to determine a plant's hygiene status:

- Aerobic mesophilic bacteria
- Enterobacteriaceae
- *Listeria* spp.

The assessment can be conducted according to the assessment schedule (see tab. 1, Reference values), the limit values to be applied internally shall be defined.

Table 1: Assessment schedule for monitoring the success of cleaning and disinfection

Area	Bacteria type	Limit
Surfaces that get in contact with food: immediately after cleaning and disinfection	Aerobic colony count[(1)]	≤100 CFU/100 cm²
	Enterobacteriaceae[(1)]	n.n./100 cm²
	Listeria spp.	0 CFU/100 cm²
Surfaces that get into contact with food: immediately before production	Aerobic colony count	≤10 CFU/cm²
	Enterobacteriaceae	≤1 CFU/cm²
	Listeria spp.	risk based depending on the product

[(1)] Limit values for aerobic colony count and Enterobacteriaceae following DIN ISO 10516:2020-10

Note: Testing for *Listeria* spp. is not a legal requirement but is required by QS as a "hygiene indicator" regardless of the legal requirements.

Reporting results

Any abnormal results must be reported to the responsible cleaning staff as soon as possible.

Appropriate corrective actions must be introduced (e.g. training/instruction, cleaning equipment and product checks, cleaning equipment servicing, cleaning process monitoring) in the case of unsatisfactory results. The corrective actions taken must be documented.

Sampling plans for the plant, evaluations, results, documentation measures

2.3.4 [K.O.] Recipes/specifications

Specifications are available for all raw materials. Recipes/specifications must be created for all self-produced products. Specifications/ingredient lists that at least fulfil all legal requirements must be present for all purchased products. The product must meet the respective requirements/market practices of the country of destination.

All ingredients must be listed in the recipes/specifications. QS ingredients are clearly identified in the respective recipes/specifications and are distinguished from those recipes/specifications without QS ingredients (e.g. via corresponding designations, number ranges, etc.).

The recipes/specifications must be known and accessible to the responsible member of staff. A procedure for the modification of recipes/specifications must be defined and applied.

Specifications, recipes, procedure for changing recipes /specifications

2.3.5 Pest monitoring/control

It must be ensured that a high level of cleanliness and hygiene is maintained in all work areas in order to prevent the attraction of pests and vermin. Precautions must be taken in the operating premises to ward off pests that can adversely affect the food. Appropriate measures for pest monitoring and, if necessary, pest control must be introduced.

Within the implementation of pest monitoring and control, measures and qualifications of the user must comply with the legal requirements of the country as well as the particular product specifications. Monitoring and bait points need to be controlled at least every month as long as no other control interval is determined on the basis of a risk assessment. In order to guarantee the safety of the food as well as that of the employees, suitable

pest control methods and pesticides must be used. This pest control treatment must not jeopardise the safety of the produced or stored products.

Permanent baiting (regardless of infestation) using rodenticides is only permissible in exceptional cases if it is carried out strategically by a qualified professional (pest controller as defined in Appendix I Number 4 Paragraph 4.4 of the **German Hazardous Substances Ordinance (GefStoffV)**). The existence of the conditions of the exceptional case must be proven and documented by a competent user or pest controller as part of an annual hazard analysis and risk assessment. Compliance with the risk minimization measures must be ensured. In this case, only baits approved for this purpose may be used and the bait sites must be checked at least once a month. If applicable, different regulations may exist in other countries and must be observed accordingly.

The documentation must contain at least the following information:

- Information on products used for pest prevention and control
- Date of treatment and specification of the applied quantities
- Evidence of qualifications for the employees involved in pest control (for the respective activity necessary expertise)
- Control point plans showing the positioning of monitoring and bait stations (also temporary checkpoints)
- Records of pests found (findings)
- Corrective action plans in case of pest infestation

Documentation on pest prevention and control, pest control plan, if applicable Proof of qualification, contract with specialist companies if applicable

2.3.6 Handling of deviating products

The handling of non-conforming products, auxiliary materials and packaging materials must be defined in the company and implemented in accordance with these rules. Especially the handling of dropped unpacked products or products that do not comply with the specification due to production defects must be defined. The decision as to their further use (release, post-processing/post-treatment, blocking, rejection/disposal) must be made by a designated member of staff.

Goods with an expired best-before date (BBD)/use-by date must be stored separately from other goods. These goods must be handled in accordance with internal guidelines and, if necessary, disposed of properly.

Documentation on handling deviating products, proof of use/disposal of deviating products

2.3.7 Monitoring of test equipment

When calibrating and monitoring the functionality of the instruments and devices used as test equipment (e. g. thermometers), the intervals stipulated by the manufacturers must be complied. If a manufacturer has not made any stipulations in this regard, the test equipment must be calibrated or checked in line with the perceived estimation of the risk but at least once a year (approx. every 12 months). The measuring methods of the various test devices must be taken into consideration. The calibration or check procedure is described for each test device. The results must be documented for, and clearly traceable to, each piece of test equipment (incl. deviations, corrective actions). The measuring precision, reliability and functionality of operational test equipment must be guaranteed.

If calibration is not possible for certain test equipment, this test equipment must be maintained and serviced accordingly.

If required by law, the scales used must be calibrated.

The applicable document is the **law on the placing on the market and making available on the market of measuring instruments on the market, their use and calibration and on prepackages.**

Verification of adjustment and monitoring of test equipment, documentation of calibration/verification

2.3.8 [K.O.] Foreign matter management

An appropriate and effective foreign matter management has been implemented in the company, which excludes or reduces the entry of foreign matter into food. Based on risk assessments, hazards and possible sources of entry must be identified and evaluated for at least the following categories of foreign matter:

- metall
- hard plastic
- soft plastic
- glass

- stone
- pests
- paper
- wood
- lubricants
- lacquers / coatings (Teflon)
- species-specific foreign matter (e.g. bone, cartilage)

In general, foreign matter detectors (e.g. X-ray or metal detectors) should be used, the necessity is checked in a risk assessment. Detection limits, functional tests (including rejection) for the individual devices are defined and demonstrably complied with. For products to be delivered to the final consumer, a technically possible detection size for metallic foreign matter of <7 mm should be ensured. The devices are serviced annually according to the manufacturer's specifications. Plastics that are in direct contact with food should preferably have a clear colour contrast (excluded from this are e.g. red E2 boxes customary in the industry). Before the production starts, each machine/plant must be inspected for damage. In case foreign matter (including metal-detected units) are found, measures must be defined and product hazards must be safely excluded. Foreign matter findings are categorised, the frequency of occurrence, the cause of entry and the measures taken are evaluated (e.g. evaluation of complaints, process inspections, error messages).

The responsible employees must be trained regularly on the prevention and control measures.

Documentation of foreign matter management

2.3.9 [K.O.] Contamination management

When evaluating production processes, the potential for direct and/or indirect re- or cross-contamination must be taken into account. The risk of transferring undesirable substances must be minimised during production and during the internal storage and transport of products through the use of effective measures.

Documentation Contamination management

2.3.10 Allergen management

Allergen management must be regulated within the company. Appropriate guidelines and work instructions must be in place. Employees must be adequately trained.

The allergen management strategy incorporates the following aspects as a minimum:

- Risk assessment of cross-contamination during processes (taking into account raw materials, ingredients and additives, and/or semi-finished products)
- Actions taken to avoid and/or reduce the spread of allergens
- Cleaning validation (incl. cleaning in between processes) for relevant processes
- Rules on labelling allergens and traces of allergens
- Information on allergens in raw material, semi-finished and end product specifications

Documentation Allergen management

2.3.11 Maintenance and repair

A servicing plan containing the planned servicing measures and intervals must be created and implemented for all operating premises, facilities and equipment that influence product and process safety. Maintenance and repair work must not pose any hazard to food safety. Maintenance and repair work must be documented. Before the commissioning, the hygienic and safe condition must be ensured.

The maintenance plan must include the following elements:

- (Business) areas and operations rooms
- Facilities and (internal) transport systems
- Conformity of the used excipients and lubricants
- Responsible employees (own staff or from external companies)
- Frequency

Maintenance plan, documentation of maintenance and repairment work

2.3.12 Containers for storage and transportation

Containers in which goods are stored and transported must be intact, clean and be food-safe.

2.3.13 Further processing of intermediate and end products and rework/breakage

Intermediate and end products that remain in the plant due to technological procedures, may only be re-turned to the production process following a detailed specialist inspection by a trained member of staff (see German Food Code). The processing of rework is regulated internally and is complied with (especially under the aspects of allergen carryover, product quality, compliance with guiding principles such as the guiding principles of the German Food Code, marketing standards and QS requirements with regard to raw material requirements, as well as traceability).

2.3.14 Storage management

A plausible and traceable warehouse management system (e.g. FIFO/FEFO) must be in place so that it can be quickly and clearly recognised when goods have been put into storage. Each product or packaging unit must be clearly identifiable. The storage conditions must not have a negative influence on the product condition (packed/unpacked).

The following information must be documented in a traceable manner using operational records:

- Date of delivery
- Warehouse/box/crate designation
- Supplier
- Variety
- Quantity

Batch-related storage must be ensured. The batches must be labelled. The definition of a batch is the responsibility of the storage company. There must be no mixing of varieties.

Storage documentation, storage management procedures

2.4 Technical/structural condition

***Note**: The following requirement is only described at a higher level in Chapter 2 (General requirements). The evaluation of the requirement is subordinate in the process-specific chapters.*

Plants in which food is handled and premises in which food is stored, prepared, treated or processed must be clean and permanently maintained in accordance with **Reg. (EC) No. 852/2004** Annex II. They must be laid out, designed, built and proportioned so as to enable adequate cleaning and/or disinfection, prevent airborne contamination or reduce it to a minimum and provide sufficient workspace to enable hygienically sound work steps.

Rooms in which food is stored, prepared, treated or processed must be designed and laid out in such a way that proper food hygiene is ensured and contamination between and during work steps is avoided. The overall plant concept is defined in terms of the flow of goods and people, as well as the division of hygiene zones, and is proportionate to the sensitivity of the product(s).

The following requirements must be fulfilled:

- All floor and wall coverings must be kept in a flawless condition and must be easy to clean and, if required, easy to disinfect. They must be waterproof, water-repellent and abrasion-resistant and consist of non-toxic material. Where applicable, floor surfaces must be fitted with a suitable drainage system. Wall areas must have a smooth surface up to the height that is appropriate for the work processes that are performed.
- Ceilings (or if there are no ceilings, interior roofs) and ceiling structures must be built and treated in such a way that any accumulation of dirt is avoided and that condensate, undesired mould and the peeling away of material particles is reduced to an absolute minimum.
- Windows and other openings must be designed in a manner that avoids the accumulation of dirt. Openings extending outward require insect mesh that can be easily removed for cleaning. If opened windows promote contamination, they must remain closed and sealed during the entire manufacturing process.
- Shatter protection must be in place (for windows and bulbs in the food and primary packaging material production and storage area based on the foreign matter management risk assessment).
- Doors must be easily cleaned, and if required, disinfected. They must have water-repellent and smooth surfaces.
- Surfaces (including equipment surfaces) in areas in which food materials are handled, and in particular surfaces that come into contact with food, must be kept in an immaculate condition and must be easy to clean and, if necessary, disinfect. They must be made of smooth, abrasion-proof, corrosion-proof, non-toxic material.

Operating premises and facilities must be adequately maintained and serviced in accordance with written instructions. A servicing plan must be drawn up and implemented for all operating premises, facilities and equipment in which the planned maintenance measures are listed to ensure that the work can be carried out in a hygienic and safe manner.

2.5 Premises, facility and device hygiene

***Note**: The following requirement is only described at a higher level in Chapter 2 (General requirements). The evaluation of the requirement is subordinate in the process-specific chapters.*

All rooms, plant and machines in which foods are stored, prepared, treated or processed must be in a clean, hygienic and dirt-free condition.

Pooling of water in "dead areas" and larger patches of corrosion on the equipment and machines must be avoided. Equipment are to be kept functional and clean.

The rooms must be cleaned regularly in accordance with the cleaning plan; this applies in particular to the flooring. The cleaning frequency must be based on the work rhythm/new occupancy of the operating rooms/storage rooms.

2.6 Ground clearance

***Note**: The following requirement is only described at a higher level in Chapter 2 (General requirements). The evaluation of the requirement is subordinate in the process-specific chapters.*

A system must be implemented and applied according to which products and containers that contain or are intended to contain food must not be placed directly on the floor. The goods must be stored and transported in such a way that there is no risk of contamination.

Excluded from this are:

- Automated storage systems separated by physical barriers, in which the containers are mechanically picked from above. Except for cleaning and maintenance purposes, the storage areas are not drive on or walk on, are in a hygienically clean condition and exclude contamination of the goods.
- Industrial containers (e.g. BIG Boxes) that are designed with runners or legs to stand on the floor. If these containers are stacked, contamination of the food must be avoided through internal company regulations.

2.7 Staff

2.7.1 General rules of conduct and staff hygiene

Documented guidelines must be present concerning staff hygiene, which have been communicated to staff during training sessions. Staff hygiene provisions must be observed and applied by all concerned (employees, service providers, etc.). At least the following points must be taken into consideration:

- Cleaning and disinfection of hands
- Eating, drinking, smoking and chewing gum
- Steps to be taken in the event of any injuries
- Fingernails, jewellery, piercings and watches
- Hair and beards

All employees must be provided with suitable protective clothing and headgear (plus beard protection if applicable) in sufficient quantity. Sufficient handwashing facilities must be available as well as signs explaining how to use the disinfectant. The handwashing facilities in the production premises must meet the following minimum requirements:

- Running water of a suitable temperature with touch-free taps (sensor/knee switch)
- Liquid soap and disinfectant from dispensers
- Device for hygienic hand drying

If coat hooks are present, they must be mounted in a suitable and appropriate location.

There must be a procedure in place for checking on a regular basis that staff hygiene is consistently implemented at the plant. The results must be evaluated and, if necessary, corrective actions for optimisation initiated. Anyone whose activities directly influence product safety must possess the necessary experience/training.

Procedure for implementation and monitoring of staff hygiene

2.7.2 Staff rooms and sanitary facilities

Staff and external persons must have access to suitable changing rooms. Outdoor and protective clothing must be stored separately. The sanitary facilities and staff rooms must be in a clean condition. If showers are available, they must be intact and properly maintained.

2.7.3 Access to production areas

Before entering the production areas for the first time, all employees must be trained in the rules of behaviour. All visitors must also be instructed before entering the production areas. If necessary, visitors are provided with suitable protective clothing and headgear. Company-specific access regulations are in place and are adhered to.

2.7.4 [K.O.] Hygiene sluice

The production areas are entered via hygiene sluices that are equipped to ensure that hands are effectively cleaned, dried and disinfected, and that soles are effectively cleaned, i.e.:

- Running water of a suitable temperature with touch-free taps (sensor/knee switch)
- Liquid soap and disinfectant from dispensers
- Hygienic hand drying means
- Sole cleaning (or change of shoes before entry)

Sluices are located in a suitable position and different hygiene zones are separated by sluices. The entrances from the workshop to the plant are also equipped with appropriate devices. Sluices cannot be circumvented, except in emergencies. Waste water from sole washing facilities is channeled to the drain. The cleaning procedures are governed in the plans – the facilities must be hygienically sound.

2.7.5 [K.O.] Hygiene training/protection against Infection Act

Based on **Reg. (EC) No. 852/2004**, hygiene training courses are to be held in the company every year (approx. every 12 month). Documented training programmes must be defined in accordance with the product requirements and the training requirements of the employees.

This training plan includes all rules of conduct (see 2.8.1 General rules of conduct) as well as:

- Content
- Training intervals
- Participants and trainer
- Languages

If required by law, staff working in preparation and processing rooms must be trained in accordance with the **Infection Protection Act (IfSG).** This training must be documented. In the QS scheme, training must be carried out at least once a year (approx. every 12 months).

Staff must also take part in a health briefing before carrying out a professional activity in the food sector for the first time (staff who are in possession of a briefing from the public health department fulfil this requirement) if this is required by law. The certificate from the public health department or an authorised doctor must not be older than three months when the activity is carried out for the first time.

Training plan and training proof, Instruction/certificate from the health authorities

2.7.6 General training

The responsible employees must take part in internal/external training courses once a year, which must be documented in the company records, including on the following topics:

- Product knowledge and labelling
- Quality standards/marketing standards/product conformity
- Diseases (fruit, vegetables, potatoes) and pest infestation of products
- Transport and packaging
- Occupational safety

All employees must be trained in their activities when they take up their duties and on an annual basis. The training must be based on the qualifications and activities of the persons to be trained in the company. The training programme must include training persons, the date of the training, the participants, the topic and training material used and/or handed out.

2.7.7 Information on the QS scheme

All responsible employees must be informed annually about the basic principles of the QS scheme and the relevant requirements of the QS scheme manual that fall within their area of activity. Responsible employees must be informed about the verification of the correct use of the QS certification mark on goods.

3 Requirements for the production process

3.1 General requirements

The production includes the entire processes of preparation, production of semi-finished products or partial products and products and processing procedures for such products or product groups that are produced with QS ingredients and are or can be labelled with the QS certification mark.

3.1.1 Production release

Before production begins each day, a site inspection must take place for the production area to be approved. An optical check of successful cleaning as well as damages must be performed. This approval must be documented in a corresponding form.

In case of deviations corrective measures must be defined. Implementation of the corrective actions is documented.

Documentation of the production release

3.1.2 [K.O.] Microbiological monitoring of the products

Sampling plans must be drawn up for the performance of microbiological inspections. Compliance with the sampling plans and documentation of the microbiological status must be ensured by the company's self-monitoring. The microbiological quality of the products must be verified.

⇒ Annex 7.1 "Recommendations for microbiological guide and warning values for convenience products"

The microbiological inspections of the products must be carried out on the basis of a risk analysis. As a minimum, the legal requirements regarding the microbiological criteria for food in accordance with Regulation **(EC) No. 2073/2005** must be complied with. The currently valid version of the standard must be used.

The frequency of product sampling/testing must be adapted to the respective product group in a risk-oriented manner (e.g. microbiological sensitivity), the sales volume and the results of previous tests (increased if necessary).

All additional components used for the end product must also be microbiologically analysed in a risk-oriented manner (e.g. marinades, cheese). Microbiological tests of the products must be carried out by accredited laboratories (in accordance with EN ISO/IEC 17025 for the field of microbiology). In the event of unsatisfactory results, exceeding the action value (see control plan) and/or non-compliance with the food safety and process hygiene criteria, the production process must be analysed for possible causes. If necessary, appropriate measures must be taken:

- corrective measures (e.g. in production hygiene and in the selection of raw materials)
- further measures to prevent the unacceptable microbiological contamination from recurring.

In addition, in the case of obligate or facultative pathogens, it must be decided to what extent the sampled batch is a "safe food" within the meaning of Article 14 of Regulation **(EC) No. 178/2002** and its marketability is guaranteed.

Canning production

In deviation from the required microbiological tests by an accredited laboratory, tests for the microbiological monitoring of the canned goods can be carried out in the company in a risk-oriented manner to validate the heat treatment. For this purpose, the canned goods are to be used for a reasonable period of time and at an appropriate temperature and then evaluate them. In doing so, it is necessary to check for bombage. Ever by product, further parameters must be used to draw conclusions about the microbiological condition of the canned food (e.g. pH value, a_w value).

In addition, the process of canning production must be risk-oriented, but at least annually, and generally be validated on the basis of microbiological tests when a new product is introduced and changes to existing manufacturing processes.

Sampling plans of the products, analysis results, documentation measures

3.1.3 Best before date/use-by date

If a best-before date (BBD)/use-by date is assigned, it must be ensured that the product at the end of the best-before/use-by date has the characteristics typical of the product.

To assign the declared best-before date/use-by date, reliable microbiological data must be available (cf. Table 2 mandatory for edible products that fall under the regulations of Regulation **(EC) No. 2073/2005** or the recommendations according to 7.1 Annex Recommendations Microbiological Guidelines and Warning Values for Convenience Products). In parallel, a sensory analysis must be carried out. A procedure must be implemented that includes a regular audit of the best-before/use-by date.

Table 2: Food safety criterion [1] for food placed on the market during the shelf life (from Regulation **(EC) No 2073/2005)**

Food category	Microorganisms	Sampling plan[2]/Limit values
Other than for infants or for special medical purposes certain ready-to-eat foods that facilitate the propagation of *Listeria monocytogenes*	*Listeria monocytogenes*	n=5 and c=0 100 CFU/g[3,4]
Other than for infants or for special medical purposes certain ready-to-eat foods that **do not** facilitate the propagation of *Listeria monocytogenes*	*Listeria monocytogenes*	n=5 and c=0 100 CFU/g

[1] "food safety criterion" means a criterion that determines the acceptability of a product or a batch of food and which applies to products on the market.

[2] n = the number of sample units in the sample; c = the number of sample units whose values lie between m and M

[3] This criterion shall apply provided that the manufacturer can demonstrate to the satisfaction of the competent authority that the product does not exceed 100 cfu/g throughout its shelf life. The operator may set intermediate limits during the process, which should be low enough to guarantee that the limit of 100 cfu/g is not exceeded at the end of the shelf-life

[4] If the food business operator cannot demonstrate to the satisfaction of the competent authority that the product does not exceed the limit of 100 cfu/g throughout the shelf-life, n=5 and c=0 in 25 g shall not be detectable for products before they have left the direct control of the food business operator that produced them.

Documentation for checking the best-before date/use-by date

3.1.4 Listeria monitoring

Listeria monitoring in accordance with the legal requirements of **Art. 5 Regulation (EC) No. 2073/2005** must be implemented in the company if the following requirements are met:

- Ready-to-eat foods are produced and
- these ready-to-eat foods can pose a health risk due to *Listeria monocytogenes*

As part of their sampling plan, the relevant companies must analyse samples from the processing areas and equipment for Listeria monocytogenes as part of their sampling plan.

Sampling is carried out both during processing or preparation and after cleaning and disinfection. disinfection. Furthermore, the requirements of the Zoonoses Ordinance and corresponding national legislation must be observed, in particular with regard to:

- in-house controls
- Reporting obligations to the authorities
- Retained samples

- Documentation obligations
- Measures

Measures to be taken in the event of negative trends or exceedance of guideline values

According to Regulation **(EC) No. 2073/2005**, appropriate measures must be taken in the event of unsatisfactory results or negative trends:

- Determination of the causes
- Corrective measures to reduce the bacterial count

Reference to further documents:

- Ordinance with food law regulations for the monitoring of zoonoses and zoonotic agents (Zoonosis Ordinance)
- QS Supporting document listeria prevention for slaughtering, deboning and processing

Sampling plans of surfaces, analysis results, temperature recorder, temperature control, measurement protocols

3.1.5 [K.O.] Temperature recording and monitoring

Temperature specifications must be available for all products requiring refrigeration. Compliance with the cold chain must be monitored within the company's sphere of influence and the temperatures documented. The temperature detection and monitoring must be regulated in such a way that the requirements for the product temperature (see Table 3) are fulfilled. The product with the lowest temperature limit determines the temperature for the entire storage room.

Defrosting processes are monitored appropriately with regard to temperature control.

Procedures in the event of a technical malfunction must also be described and known. Measures to be initiated if temperatures are exceeded must be defined and be known to the responsible employees.

Table 3: Maximum product temperatures during storage and transport of meat, minced meat and meat preparations

Product	Measuring location (P)[1]	Maximum Temperature [°C]	Reference source
Meat, fresh (exept poultry)	P	+7	**Regulation (EC) No 853/2004** Annex III Section I Chapter V point 2b
Slaughtering by products (also offal)	P	+3	**Regulation (EC) No 853/2004** Annex III Section I Chapter V point 2b
Minced meat	P	+2	**Regulation (EC) No 853/2004** Annex III Section V Chapter III point 2c
Meat preparations	P	+4	**Regulation (EC) No 853/2004** Annex III Section V Chapter III point 2c

Product	Measuring location (P)[1]	Maximum Tempera-ture [°C]	Reference source
Poultry meat (incl. poultry offal)[2]	P	+4	**Regulation (EC) No 853/2004** Annex III Section II Chapter V point 3

[1] Product temperature (P) is the maximum temperature that must be maintained at all points in foods requiring refrigeration.

[2] Poultry meat that is processed in fresh poultry preparations must, in accordance with Regulation (EC) No. 1308/2013, be stored at all times at a temperature between -2 °C and +4 °C

Deep-frozen food

In the freezer rooms/facilities in which frozen products, raw materials, additives or auxiliary materials are stored, the specific climatic conditions such as temperature, humidity and other requirements in accordance with the specifications of the stored products and the **Frozen Food Ordinance (TLMV)** are complied with and documented (see Table 4).

Variation of temperature of these products up to 3 °C is acceptable in accordance with the regulation on **TLMV**.

Table 4: Temperature requirements freezer rooms

Room	Optimum room temperature [°C]	Relative humidity [%]
Freezer room	Min. - 18	95 – 98

Temperature and climate recording, temperature checklist, documentation of measures in the event of deviations

3.2 Cold storage rooms

3.2.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.2.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

Cold storage rooms must be in a clean and hygienically sound condition. Mould accumulation must be prevented in the cold storage rooms and steps taken to remove mould if necessary. Care should also be taken to ensure that icing is reduced to a minimum. The cooling systems must be regularly serviced and kept in a hygienically sound condition. A documented cleaning plan must be in place for the cooling facilities. Proof of cleaning must be documented.

3.2.3 Ground clearance

⇒ 2.6 Ground clearance

3.2.4 [K.O.] Temperature recording and monitoring

⇒ 3.1.5 [K.O.] Temperature recording and monitoring

3.3 Frozen storage rooms

3.3.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.3.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

Cold storage rooms must be in a clean and hygienically sound condition. Mould accumulation must be prevented in the cold storage rooms and steps taken to remove mould if necessary. Care should also be taken to ensure that icing is reduced to a minimum. The cooling systems must be regularly serviced and kept in a hygienically sound condition. A documented cleaning plan must be in place for the cooling facilities. Proof of cleaning must be documented.

Transport containers and vehicles are to be in a hygienically flawless condition.

Cleaning and disinfection plan

3.3.3 Ground clearance

⇒ 2.6 Ground clearance

3.3.4 [K.O.] Temperature recording and monitoring

⇒ 3.1.5 [K.O.] Temperature recording and monitoring

3.4 Dry storage

3.4.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.4.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.4.3 Ground clearance

⇒ 2.6 Ground clearance

3.5 Silo storage

3.5.1 Silo storage

Silos are completely emptied in accordance with internal specifications, checked and cleaned with regard to pest infestation and hygiene. Silo empty messages are recorded in order to narrow down a batch as far as possible. The climate control and the climate process in the silo, as well as measures in the event of deviations, must be documented. To avoid cross-contamination or mixing in silos, before a product change, a release procedure must be defined.

Temperature and climate recording, temperature checklist, documentation of measures in the event of deviations

3.5.2 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.5.3 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.6 Tank storage

3.6.1 Tank storage

Tanks must be completely emptied and cleaned as often as possible. For temperature-controlled products, appropriate temperatures are verifiably maintained, and measures in the event of deviations must be documented. To avoid cross-contamination or mixing in tanks, before a product change, a release procedure must be defined.

Temperature and climate recording, temperature checklist, documentation of measures in the event of deviations

3.6.2 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.6.3 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.7 Preparation and processing procedures

Preparation and processing processes include, for example, washing and peeling processes, unpacking, decanting, preparation, thawing, weighing, manual or mechanical comminution (e.g. grinding, chopping, grating, slicing, pureeing, straining) cutting (manual or mechanical, uniform cutting into defined moulds).

The process of batching and weighing includes the dosing of individual components according to recipe, taking batch traceability into account.

3.7.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.7.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.7.3 Ground clearance

⇒ 2.6 Ground clearance

3.7.4 Organisation and workflows

Structured workflows, responsibilities and in-process controls are defined for preparation and processing processes. The job classification must be clear from the process and any risks or control activities must be known to the employee concerned. Potential risks for food safety or negative impacts are avoided.

Batches must be clearly identified and, if necessary, separated.

3.8 Production of semi-finished products, partial products, components

The production of semi-finished products, subproducts and menu components includes, for example, dough preparation (pasta, pizza), the production of sauces, toppings and mayonnaises for delicatessen salads. This includes, among other things Processes for mixing, homogenising, seasoning and marinating.

3.8.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.8.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.8.3 Ground clearance

⇒ 2.6 Ground clearance

3.8.4 Organisation and workflows

Processes must follow structured workflows. The job classification must be clear from the process and any risks or control activities must be known to the employee concerned. Potential risks for food safety or negative impacts are avoided.

Batches must be clearly identified and, if necessary, separated.

3.9 Further processing

The process of further processing includes the combining of raw materials, partial products, semi-finished products, components, e.g. filling pasta, topping pizza, lasagne, dough pieces with other ingredients, mixing menu components or delicatessen salads.

3.9.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.9.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.9.3 Ground clearance

⇒ 2.6 Ground clearance

3.9.4 Organisation and workflows

Structured workflows, responsibilities and in-process controls are defined for further processing processes. The job classification must be clear from the process and any risks or control activities must be known to the employee concerned. Potential risks for food safety or negative impacts are avoided.

Batches must be clearly identified and, if necessary, separated.

3.10 Requirements for heating processes

The process of heat treatment includes all heating processes that are carried out for technological reasons or to improve sensory properties. These include, for example, cooking, scalding, blanching, steaming, frying, deep-frying and baking.

If a heating process is carried out as part of the canning process, the requirements of chapter 3.11 Requirements for canning production apply.

3.10.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.10.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.10.3 Ground clearance

⇒ 2.6 Ground clearance

3.10.4 Organisation and workflows

Processes must follow structured workflows. The job classification must be clear from the process and any risks or control activities must be known to the employee concerned. Potential risks for food safety or negative impacts are avoided.

Batches must be clearly identified and, if necessary, separated.

3.10.5 [K.O.] Registration of heating and cooking temperatures

There must be product-specific heating programs that also be adhered to. The cooking programs regulate the core temperature as well as the duration of the heating procedure. Temperature/time management must be defined and documented. The responsible employees must regular control temperature and time specifications and intervene in the events of discrepancies and implement the defined corrective measures. The heat treatment parameters listed in the specifications must be complied with.

Documentation of temperature/time management

3.10.6 Cooling

After heating products, they must be cooled down as quickly as possible. The cooling process is carried out in such a way that recontamination of heat-treated products is avoided. Manufacturers must define the appropriate conditions in a risk-oriented manner. If water is used for cooling, drinking water must be used.

3.11 Requirements for canning/hot-filling

The canning and hot-filling process includes the sterilisation or pasteurisation of the product in suitable packaging (e.g. cans, jars or stand-up pouches) to protect against microbial spoilage and to preserve the product.

3.11.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.11.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.11.3 Ground clearance

⇒ 2.6 Ground clearance

3.11.4 Organisation and workflows

Structured workflows, responsibilities and accompanying inspections are defined for the canning process and implemented accordingly. Potential risks for food safety or negative impacts are avoided. At the end of the production process, a random sample leak test (seam test) must be carried out on the tins produced. Damaged units (e.g. deformed cans) are sorted out in the process.

3.11.5 Requirements for containers

Clean and undamaged containers must be used for filling. The containers must be free from foreign bodies. They must also be suitable for the intended use.

Immediately before filling, the containers (cans/jars) must be cleaned by means of a suitable procedure (rinsing, blowing out, turning). Damaged containers have to be removed from the start of the process.

3.11.6 [K.O.] Preservation

The shelf life, microbiological stability and safety of the products must be based either on heat treatment alone or, if necessary, on a combination of heat treatment and other process parameters (e.g. pH value or a_w value).

For pasteurisation/sterilisation, the product-specific F and D values specified in the company must be observed.

Specific heating and cooling programmes must be available and adhered to for the respective product groups. The specified temperature/time control must be adhered to and documented for each pasteurisation/sterilisation. The responsible employees must regularly check the temperature/time specifications, intervene in the event of deviations and implement the specified corrective measures.

If the preservation is based on a combination of heat treatment and other process parameters, the relevant parameters must also be complied with and documented.

The thermometers used must be functioning, suitable for their purpose and must be calibrated regularly. Mixing of non-heat-treated units and heat-treated units that have undergone the pasteurisation/sterilisation process is excluded by internal measures (e.g. labelling, systematic spatial separation).

Documentation of temperature/time management

3.11.7 Cooling

After heating meat products, they must be cooled down as quickly as possible. The cooling process is carried out in such a way that recontamination of heat-treated products is avoided. Manufacturers must define the appropriate conditions in a risk-oriented manner. If water is used for cooling, drinking water must be used.

3.12 Requirements for cooling and freezing processes

3.12.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

3.12.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

3.12.3 Ground clearance

⇒ 2.6 Ground clearance

3.12.4 Organisation and workflows

Cooling and freezing processes must follow structured workflows. The job classification must be clear from the process and any risks or control activities must be known to the employee concerned.

Batches must be clearly identified and, if necessary, separated.

3.12.5 [K.O.] Temperature registration

Product-specific cooling/freezing programmes must be in place and adhered to. The programmes regulate the core temperature and the duration of the process. The temperature/time control must be defined and documented. The responsible employees must regular control temperature and time specifications and intervene in the events of discrepancies and implement the defined corrective measures.

Documentation of temperature/time management

3.13 Additional production departments and facilities

3.13.1 [K.O.] Spice room

Spices must be stored cleanly and tidily in suitable premises under the recommended storage conditions. Spices containing allergens are to be stored in a specific area and are taken into account in the allergen management strategy. Any risk of allergen contamination in the spice room must be excluded.

An up-to-date specification must be present for all the spices used. If spices are removed from their orignal packaging, the label and best-before date must be transferred to the new storage container. Spice con-tainers must be completely emptied, cleaned and disinfected before any new goods are placed into the container. All spices and spice mixes can be clearly identified via traceability information.

3.13.2 Wash facilities

The cleaning of containers (E2 crates, cutter trolleys, etc.) must be carried out thoroughly and properly. Above all, it must be ensured that they are properly dried and that no moisture remains.

3.13.3 Storage of cleaning agents and disinfectants

The rooms or facilities in which cleaning agents and cleaning equipment are stored must be clean and in proper condition. They ensure hygienic storage of devices and, if necessary, permit clear separation of equipment for the clean/non-clean areas. The equipment is serviced and maintained on a regular basis. A procedure for clean-ing and disinfecting rooms and equipment must be in place and staff must be familiar with this procedure.

All containers used to store cleaning agents must be labelled accordingly. Potential environmentally hazardous substances must receive special treatment (e. g. protective tubs).

Cleaning chemicals and products must have up-to-date safety data sheets and usage instructions. The usage instructions must be known to the responsible members of staff and must be stored on site. Cleaning equip-ment and chemicals must be clearly labelled and stored separately from food.

Access to this area is restricted. The responsibilities for storing and using cleaning and disinfection products are regulated and the responsible employees are trained on how to handle the relevant chemicals.

Safety data sheets, instructions

3.14 Waste disposal logistics

3.14.1 Waste disposal logistics

Suitable measures must be taken for the storage and disposal of food waste, inedible by-products and other waste products.

Food waste and other waste products

- must be removed as quickly as possible from rooms where food is handled, so that an accumulation of this waste is avoided.
- must be collected in lockable containers. These containers must be suitable for proper maintaining and be easy to clean and disinfect if necessary. If there is a risk of confusion between waste and food containers or another necessity, the containers must be labelled.

Suitable measures must be taken for the storage and disposal of food waste and other waste products. Waste collection rooms must be designed and managed in such a way that they can be kept clean and free of pests.

The rooms must be cleaned regularly. This must be documented. Waste must be stored in an area where it is protected from unauthorised access.

Under current Community law, waste must be disposed of in a hygienic and environmentally friendly manner and must not affect food. Waste water systems must be designed in such a way that influence on the goods is excluded.

To avoid unnecessary waste and to ensure the efficient use of resources, the company must have an operational waste management/recycling system in place. There must be a separate waste disposal (e.g. dual system or similar).

This recycling management must be documented and it must be possible to provide evidence of this at any time:

- Waste generated
- Disposal route
- Whereabouts

Evidence of waste management/recycling system

4 Packaging, stock transfer and labelling

4.1 Packaging, stock transfer

4.1.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

4.1.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

Cleaning must take place spatially and temporally separate from the packing processes.

4.1.3 Ground clearance

⇒ 2.6 Ground clearance

4.1.4 [K.O.] Packaging material

Packaging material is to be stored in a separate storage area. Packaging material and any supplementary material must be stored and transported in such a way that the risk of contamination is kept to a minimum. Damage to packaging material must be prevented. Packaging material and any supplementary material must be suitable for the purpose and correspond to legal requirements.

Only use packaging material from which the outer packaging has already been removed. Damage to the packaging material must be avoided and prevented, particularly in the case of packaging materials such as plastic (HACCP).

Reusable packaging (crates, boxes, etc.) must be machine-cleaned after each circulation before being used again. Reusable large containers (> 60 x 90 cm) can also be cleaned using other suitable methods (e.g. high-pressure cleaners).

Declaration of conformity/Declaration of compliance

Reference to further documents:

- Explanatory notes for conformity assessments of packaging materials

4.1.5 [K.O.] Declaration of conformity/Declaration of compliance

The packaging material that comes into direct contact with food must be harmless to health and hygienically safe. The up-to-dateness of the declarations of conformity must be guaranteed. For all packaging materials used for which there is no declaration of conformity in accordance with **Regulation (EU) No. 10/2011 on plastic materials and articles intended to come into contact with food**, a declaration of no objection must be available.

A current declaration of compliance must be available for plastic packaging materials that come into direct contact with food (per Art. 16 of **Reg. (EC) No. 1935/2004**) and the packaging material must be suited to the specific product characteristics (e.g. fat content, pH level) and equipment (e.g. pasteurisation). The safety of all other primary packaging materials used (e.g. glass jars) is confirmed.

Certificates of conformity for the packaging material used must be available at the packaging company.

If the packaging material is purchased by another company (e.g. agency), the corresponding certificates must also be available there.

Declaration of conformity/Declaration of compliance

4.1.6 [K.O.] Final product inspection

Test procedures must be specified for final product control that ensure the flawless distribution of the products. This includes:

- Seal tightness check
- Filling weight check: scales used must be calibrated and subject to regular testing device inspections. Filling weight checks are to be performed on a regular basis; they must be documented and must comply with the legal regulations. **Quantity and content (less tolerance) must correspond to the information on the packaging or the specifications.**
- Cover gas concentration
- Temperature monitoring
- Labelling (labels, packing slips, QS-certification marks, Best-before date/Use-by date/Storage notes)

There must be a procedure for establishing best-before dates/use-by dates in the company. These dates must be defined for each product group. Test procedures must be specified for final product control that ensure the flawless distribution of the products.

For unpackaged goods, this includes, among other things:

- Temperature control, if applicable
- Damage/contamination
- Proper labelling

For packaged goods, this also includes:

- Seal tightness check, if applicable
- Filling weight check, if applicable
- Cover gas concentration, if applicable
- Best before/use by date/storage instructions, if applicable

Checks are to be performed on a regular basis; they must be documented and must comply with the legal regulations. Quantity and content (less tolerance) must correspond to the information on the packaging or the specifications.

4.2 Labelling

4.2.1 Product labelling

Depending on the legal requirements, each package must bear the following information in legible, indelible letters and numbers that are visible from the outside:

- Designation of the food
- List of ingredients
- Substances that trigger allergies and intolerances
- Quantity of certain ingredients or classes of ingredients
- Total net quantity
- Best-before date/Use-by date
- Distributor/packer
- Country of origin/Place of origin
- Nutrition declaration
- if applicable, special instructions for storage and/or instructions for use (e.g. storage at a certain temperature)
- if necessary, instructions for use, if it would be difficult to use the food appropriately without such instructions

The following standards and regulations must be taken into account: Law on Metrology and Verification (Verification Act), Pre-packaging Ordinance (FertigPackV), Food information to consumers (LMIV), Lot Labelling Ordinance (LKV), Price Indication Ordinance (PAngV), Additive Authorisation Ordinance (ZZulV).

All information provided on the label must be correct.

Procedure for final product control, establishing best-before dates/use-by dates

4.2.2 [K.O.] Labelling of marketed QS goods

Goods can only be marketed/delivered as QS goods if a corresponding QS eligibility of delivery exists for the own location and the goods have been purchased as QS goods. Upon delivery, QS goods must be clearly labelled as such in the accompanying documents (usually delivery notes or delivery advice note via EDI, or alternatively weighing notes) so that they can be identified as QS goods by the recipient at goods receipt.

The obligation to label the accompanying documents applies to all QS goods, regardless of whether the QS certification mark is used on the label or the outer packaging (⇒ 2.1.2. Use of the QS certification mark) or not.

The clear allocation between QS goods and corresponding goods documents (delivery notes and other accompanying documents) must be guaranteed at all times. The same applies to the use of goods documents in electronic form.

The procedure for QS labelling must be explained and known to the responsible employees, even if no QS goods are traded.

For the labelling of QS goods, blanket regulations can be agreed between customers and suppliers (as an alternative to product-related labelling) or synonyms can be used. The procedure must be documented in the quality management manual or in a work instruction, be known to the employees concerned and to the supplier/recipient of the goods and be traceable in the audit.

Incoming and outgoing goods documents

4.2.3 Storage of packaged goods

The packaged goods prepared for transport must be stored in a quality-preserving manner by:

- Appropriate hygiene conditions

Protection against microbiological, physical and chemical hazards (appropriate temperature, no permanent exposure to light, avoidance of packaging damage, freezer burn, etc.)

5 Incoming and outgoing goods, traceability and transport

5.1 Incoming goods

5.1.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

5.1.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

Furthermore, the area must be secured from pest infestation through closable doors and gates. Delivered goods have also to be inspected for infestation and resp. measures are implemented if necessary.

5.1.3 Ground clearance

⇒ 2.6 Ground clearance

5.1.4 Organisation and workflows

Structured workflows, responsibilities and in-process controls have been defined for incoming and outgoing goods and are implemented accordingly. Possible risks to food safety or adverse effects are avoided. The goods routes must be optimized so that there is no cross-contamination between packaged and unpackaged goods. Goods that must be kept refrigerated are delivered immediately into the cold stores (if they are not to be processed straight away), otherwise appropriate corrective actions are taken to guarantee compliance with the cold chain.

5.1.5 Transport vehicles delivery

Delivery vehicles are in a clean and hygienically sound condition and display no signs of old soiling. Neither the clothing of the driver or and the possible accompaniment nor the handling of the goods effect each other negatively.

The transported goods are hygienically sound and display no signs of major soiling.

5.1.6 [K.O.] Incoming goods inspection

Inspection of incoming goods must be defined and documented. This includes all products relevant. If necessary, incoming goods inspection must be adapted to any changed manufacturing, storage or transport conditions. Issues of relevance in terms of food safety must be recorded during the inspection of incoming goods (e.g. temperatures).

It must be possible to trace which goods are purchased from which supplier.

Incoming goods inspection, supplier list

5.1.7 [K.O.] Labelling of purchased QS goods

When QS goods are purchased, they must be clearly labelled as such in the accompanying documents (usually delivery notes or dispatch notes via EDI, or alternatively weighing notes) and be able to be identified as QS goods upon delivery can be identified as QS goods in the incoming goods department.

The obligation to label the accompanying documents applies to all QS goods, regardless of whether the QS certification mark is used on the label or the outer packaging (see 2.1.2. Use of the QS certification mark) or not.

The clear allocation between QS goods and corresponding goods documents (delivery notes and other accompanying and other accompanying documents) must be guaranteed at all times. The same applies to the use of Goods documents in electronic form.

The QS labelling procedure must be explained and must be known to the responsible employees who work with the products, even if no QS goods are traded.

For the labelling of QS goods in the accompanying documents, blanket regulations can be agreed between customers and suppliers (as an alternative to product-related labelling) or synonyms can be used.

The procedure must be documented in the quality management manual or in a work instruction, be known to the employees concerned and the supplier/recipient of the goods and be traceable during the audit.

Proof of QS goods (e.g. delivery notes etc.)

5.1.8 [K.O.] Temperature recording and monitoring

⇒ 3.1.5 [K.O.] Temperature recording and monitoring

The temperatures of goods requiring refrigeration must be recorded and documented during the incoming goods inspection.

Proof of temperature recording

5.1.9 Hygiene and quality requirements

The goods must be visually inspected for defects on the basis of random samples. The delivered goods must also be checked for infestation and, if necessary, appropriate measures must be taken. The results of the goods inspection must be documented.

The condition of the goods must be examined with regard to product damage and perceptible detrimental influences must be checked. Rejected goods must be sorted out or, if necessary, rejected (random sampling for spoilage or spoilage due to rotting or mould formation, dirt and foreign matter, odour-intensive contaminants, disease and pest infestation).

Goods receipt checklist, results log

5.2 Outgoing goods and returns management

5.2.1 Technical/structural condition

⇒ 2.4 Technical/structural condition

5.2.2 Premises, facility and device hygiene

⇒ 2.5 Premises, facility and device hygiene

5.2.3 Ground clearance

⇒ 2.6 Ground clearance

5.2.4 [K.O.] Outgoing goods inspection

There must be a structured and traceable outgoing goods inspection in the company. The handling of deviations must be defined. The responsible employees must be trained in dealing with deviating products. Before loading, the accompanying documents must be checked, the load (goods and packaging) must be compared and the correct labelling of the goods must be checked. Specifications must be adhered to. It must be possible to trace which products are being delivered to which customers.

Outgoing goods checklist, QS customer list

5.2.5 Claims management

A system is in place for handling product complaints (incl. from official bodies) and product claims, which as a minimum incorporates regulations on:

- Recording and evaluating complaints and claims
- Introducing and implementing corrective actions
- Responsibilities and internal communications

5.2.6 [K.O.] Returns management

A system for processing and completing returns must be in place. Returns are defined as goods returned to the supplier e.g. due to defects, ordering errors, etc. When returned, goods return to the ownership of the sender. The following allocation and processing steps are regulated as part of the returns process:

- Acceptance and categorisation of returns
- Labelling and separating QS goods and non-QS goods
- Corrective actions
- Record-keeping duties
- Responsibilities

Returns management documentation

5.2.7 Organisation and workflows

The process of outgoing goods and returns management must follow structured workflows. The division of work among staff must be clearly structured and in line with the work process in order to avoid potential risks to food safety. The batches must be formed, identified and documented uniquely.

Clear procedures and processes must be defined in the area of order picking and despatch that take into account at least the following points and ensure compliance with them:

- Temperature
- Labelling (labels, packing slip, QS test mark)
- Best before/use by date/storage instructions
- Damage/contamination

5.2.8 [K.O.] Temperature recording and monitoring

⇒ 3.1.5 [K.O.] Temperature recording and monitoring

The temperatures of goods requiring refrigeration must be recorded and documented during the outgoing goods inspection.

Proof of temperature recording

5.3 Transport/Logistics

5.3.1 Product-compliant transport

Transport must be carried out in accordance with the product requirements. Goods must be transported in closed, thermally insulated vehicles or refrigerated vehicles, taking into account the type of goods, transport

distance and outside temperatures. Goods that are transported in open containers on open means of transport must be adequately covered. Loose goods must be transported in such a way that no contamination can occur.

Proof of product-compliant transport

5.3.2 Transport hygiene

The delivery vehicles must be in a hygienic and tidy condition and must not have any old soiling. Loading compartments or loading areas of transport vehicles may only be used if they are clean and free of contamination. The loading areas must be cleaned before loading and after unloading.

The driver and any persons accompanying the vehicle must be cleanly dressed. The goods must not be adversely affected by clothing or handling, for example. The transported goods must be loaded hygienically.

Transport vehicle checklist

5.3.3 [K.O.] Temperature recording and monitoring

⇒ 3.1.5 [K.O] Temperature recording and monitoring

For vehicles in the company's own fleet, the temperature inside the loading compartments must be set according to the goods to be transported. The temperature must be checked and documented before the start of the journey. If necessary, the temperature recorders of the means of transport must be checked/row recorders must be read. The temperature check before the start of the journey can be dispensed with if the temperature is continuously recorded during transport.

In the case of goods requiring refrigeration, the temperature must be maintained and continuously documented during the entire transport in accordance with the applicable regulations and specifications.

5.3.4 Ground clearance

⇒ 2.6 Ground clearance

5.3.5 Commissioning of logistics companies (subcontractors)

Commissioned logistics companies that take over transports with QS goods between QS scheme participants of the stages slaughtering/deboning, processing, wholesale/logistics and/or preparation/processing or are commissioned for storage and, if applicable, commissioning, must be registered in the QS database for the production type logistics, wholesale or preparation/processing and be authorised to deliver.

The ordering party/shipper (QS scheme participant) is responsible for fulfilling the requirements. He must inform the logistics company if a delivery or storage of QS goods is involved.

If logistics companies are commissioned to transport QS goods at short notice or on a one-off basis (due to high seasonal volumes, e.g. as part of daily contracts), it is possible to deviate from this requirement. In this case, the companies must be obliged to comply with the QS requirements (Guidelines for the Logistics of Meat and Meat Products 2;3;5). The implementation of the requirements at the companies (e.g. forwarders) is to be ensured on the basis of documentary evidence and controlled on a random basis within the context of self-monitoring.

Procedure for checking QS eligibility of delivery, for short-term or one-off transport orders: Proof of implementation of the QS requirements, self-assessment checklist

5.4 Traceability and origin of goods

5.4.1 [K.O.] Methods of traceability

The transparency of the flow of goods must be demonstrated. Scheme participants must set up systems and procedures for traceability in accordance with Regulation (EC) No. 178/2002. The batch size produced per supplier must be defined to ensure traceability. Traceability must be guaranteed for at least the daily production or one shift of an article/an article group.

Each notified and incoming consignment of goods must be given a batch number/ID. The respective batch number must be noted on the corresponding accompanying documents (e.g. supplier's advice note/fax, warehouse stock note, quality records, delivery note/packing slip, invoice to the customer, settlement with the supplier) and must accompany the goods from the time they are delivered to the customer until they are dispatched from the company. Existing labelling systems can also be adopted, provided that the goods are

identical/similar. All data required for identification/classification/sorting/preparation and traceability must be documented under the batch number.

A labelling and registration system must be maintained that is traceable for third parties. This labelling and registration system must ensure clear identification of the goods and traceability and plausibility of the flow of goods and the packaging material at all times.

It must be ensured that the traceability information is available to QS within 24 hours of contacting the scheme participant.

Internal traceability processes must be structured in the audit in such a way that the corresponding information is collated within four hours.

The following information on customers, suppliers and deliveries is relevant:

- Name, address and telephone number of the food business operator from which the food was dispatched and, if applicable, of the consignor (goods owner) and of the other recipient
- QS ID and location number (insofar as these identification numbers are issued within the QS scheme)
- Type and quantity of the delivered products with clear article reference to raw materials, semi-finished products and end products
- Dispatch date, delivery data
- Batch or lot number (if created during the production process)
- For loose goods, the batch/lot number on the outer packaging

The information mentioned above must be provided to QS in a structured, commonly used and machine-readable format.

Batch labelling, traceability system, batch creation, incoming goods documents (e.g. delivery notes, incoming goods inspection) and outgoing goods documents, supplier list, customer list

5.4.2 [K.O.] Traceability check

The labelling and recording system implemented at the plant must enable products to be clearly identified as QS products and goods to be traced based on a production or outgoing goods sample at any given time in accordance with **Reg. (EC) No. 178/2002.** This also applies to packaging and spices.

The labelling and registration system is tested at least once a year (approx. every 12 months). All relevant commodity flows are taken into account. The test must be documented and the findings must be presented in a comprehensible manner.

Products that are known to contain QS products, but which are not labelled as QS goods, must also be taken into account for the traceability check.

Traceability test

5.4.3 [K.O.] Quantity comparison

There must be a plausible relationship between the quantity of purchased QS products and the quantity of produced and/or stored QS products. The relevant data and receipts must be available and comprehensibly processed in the internal system, taking into account:

- Quantities recorded on incoming goods documents (e.g. delivery notes, incoming goods inspections)
- Quantities recorded on outgoing goods documents (e.g. delivery notes)
- Quantities recorded in stock (internal and external storage premises)
- Allocation of article master data for raw materials and final products (e.g. specifications)
- Specified tolerances (offcuts, losses)
- Defined quantity units (for plausible allocation)

Incoming goods documents and outgoing goods documents as well as goods quantity in cold/frozen storage

5.4.4 [K.O.] QS eligibility of delivery check

Supplying companies

All companies delivering QS goods must be clearly identified as locations in the QS database with eligibility to deliver at the time the goods are handed over. This also applies to agencies/brokers and companies that handle or store products and do not become the owner of the goods. Delivering producers must also be eligible to deliver the corresponding production type and, if applicable, crop.

Receiving companies

If the goods are labelled with the QS certification mark on the label or the outer packaging, the recipient/customer of the goods must be identified in the QS database as a scheme participant eligible to deliver.

Procedure for checking the QS eligibility of delivery

5.4.5 [K.O.] Separation and identification of QS goods/non-QS goods

There must be a comprehensible system for separating QS goods and non-QS goods at the plant. Clear labelling and batch separation of QS goods and non-QS goods must be ensured. If no QS goods are available yet at the plant, the goods separation procedure must be outlined appropriately.

QS goods must be clearly identifiable at all times during operation. It must be ensured that no mix-ups occur.

System for the separation of QS goods and non-QS goods

6 Definitions

6.1 Explanation of symbols

K.O. criteria are marked **[K.O.]**.

References to related documents are highlighted with **bold text**.

This sign means: A written proof must be given. Next to this sign documents are listed that can be used as proof. All (including digital) control and documentation systems that prove that the requirements are fulfilled, can be used.

⇒ References to other sections of the Guideline are indicated by an arrow.

Notes are identified by *Note in italics*.

6.2 Abbreviations

CCP	Critical Control Point
EDI	Electronic Data Interchange
FEFO	First Expired – First Out
FIFO	First In – First Out
GHP	Good Hygiene Practice
GLN	Global Location number
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
K.O.	Knock out
BBD	Best before date

6.3 Terms and definitions

- Action value

  If the microbiological examination of the end products reveals that the action value has been exceeded the manufacturing process must be analysed for possible causes of the exceedance and, if necessary, measures must be taken to reduce the corresponding germ content. In addition, in the case of obligate or facultative pathogens (EHEC/STEC, Staph. aureus), a decision must be made as to whether the sampled batch is a "safe food" within the meaning of Article 14 of Regulation (EC) No. 178/2002. No measures are required for results below or equal to the action value.

- Service provider

  For the purposes of QS, service providers are companies that carry out activities on behalf of the processor, such as cutting, freezing or heating without becoming the owner of the goods.

- Heating process

  The following activities are understood as heating processes: Cooking, simmering, blanching, pasteurising, sterilising, deep-frying, grilling, roasting, braising.

- HACCP (Hazard Analysis and Critical Control Point)

  A system that identifies, assesses and monitors hazards that are significant in terms of food safety.

- HACCP concept

  Documentation in compliance with HACCP principles to ensure the monitoring of hazards relevant to food safety.

- Labelling

  Labelling is the identification of the QS goods on the accompanying documents. Goods that have been produced in accordance with the requirements of the QS scheme in a QS-certified company but are not labelled as such on the delivery note lose their status as QS goods and may not be marketed as QS goods.

- Canning production

  Process in which the product is pasteurised/sterilised in the final packaging and can be stored unrefrigerated.

- Food safety criterion

  A criterion used to determine the acceptability of a product or a batch of foodstuffs and which applies to products on the market (according to Regulation (EC) 2073/2005).

- Logistics companies

  For the purposes of these guidelines, logistics companies are companies that transport fresh or frozen meat or meat products or fresh, processed and/or prepared fruit, vegetables and potatoes or convenience products, e.g. transporting, dispatching, loading and unloading, storing and picking. This includes all activities involved in delivery by lorry (road transport), short-term storage for the purpose of handling goods during delivery, long-term storage and picking.

- Brokers

  In terms of QS, brokers only assume an intermediary function between suppliers and recipients. They are neither the owner nor the holder of the goods.

- Process hygiene criterion

  A criterion that specifies the acceptable functioning of the manufacturing process. Such a criterion does not apply to commercial products. It establishes a guideline value for contamination above which corrective action is required to maintain process hygiene in accordance with food law (according to Regulation (EC) 2073).

- QS goods

  QS goods means products that are produced and/or marketed in a QS-certified company in line with the requirements of the QS scheme.

- Ready-to-eat food

  Foodstuffs intended by the producer or manufacturer for human consumption without undergoing further heating or other processing to kill the relevant microorganisms/reduce them to an acceptable level.

- Ready-to-eat frozen products

  Ready-to-eat frozen products are frozen products that can be used under normal conditions without heating. On the other hand, frozen products are not considered ready-to-eat if other ingredients are added in the form of butter or sauces and which are heated before consumption as intended, or frozen products with labelled information which ensures that the product is only consumed after sufficient heating.

- Use of the QS certification mark

  Mark utilisation describes the display of the QS certification mark on the goods.

You can find a list of general terms and definitions in the **Guideline "General Requirements".**

7 Annex

7.1 Annex Recommendations Microbiological guideline and warning values for convenience products

Table 1: Guideline and warning values for the assessment of raw, dried pasta (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Escherichia coli	$1x10^1$	$1x10^2$
Mould fungi	$1x10^3$	---
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Clostridium perfringens	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g

Table 2: Guideline and warning values for the assessment of baked frozen bakery products with and without filling (ready-to-eat without heating[(1)(2)]) (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^5$	---
Escherichia coli	$1x10^1$	$1x10^2$
Enterobacteriaceae	$1x10^2$	$1x10^3$
Mould fungi	$1x10^2$	---
Coagulase-positive Staphylococcus	$1x10^1$	$1x10^2$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Listeria monocytogenes[(3)]	---	$1x10^2$

	guidance value (CFU/g)	critical value (CFU/g)
Salmonella	---	Not detected in 25 g

(1) The product group includes frozen bakery products in which all ingredients - including fillings and/or coatings - have been baked during production, such as bread rolls, croissants, unfilled crêpes and ready-baked apple strudel.
(2) The smallest sales unit, but at least 50 g, is to be used as the sample for the analysis.
(3) For the examination and evaluation of *Listeria monocytogenes*, the requirements of Regulation (EC) No. 2073/2005 on microbiological criteria in the currently valid version for foodstuffs shall apply.

Table 3: Guideline and warning values for the assessment of raw/partially cooked frozen bakery products that are subjected to heating before consumption(1)(2) (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Escherichia coli	$1x10^2$	$1x10^3$
Mould fungi	$1x10^4$	---
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g
Listeria monocytogenes(3)	---	$1x10^2$

(1) The product group includes frozen bakery products such as dough, dough pieces, fruit and Cottage cheese bakery products.
(2) The smallest sales unit, but at least 50 g, shall be used as the sample for the test.
(3) For the examination and evaluation of *Listeria monocytogenes*, the requirements of Regulation (EC) No. 2073/2005 on microbiological criteria for foodstuffs in the currently valid version must be observed.

Table 4: Guideline and warning values for the assessment of sandwiches and sandwich rolls (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Escherichia coli	$1x10^2$	$1x10^3$
Yeasts(1)	$1x10^5$	---
Mould fungi	$1x10^3$	---
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$

	guidance value (CFU/g)	critical value (CFU/g)
Salmonella	---	Not detected in 25 g
Listeria monocytogenes[2]	---	$1x10^2$

[1] If products are processed with live microorganisms (starter cultures) as ingredients, this must be taken into account in the assessment.
[2] For the examination and assessment of *Listeria monocytogenes*, the requirements of Regulation (EC) No. 2073/2005 on microbiological criteria in the currently valid version for foodstuffs must be observed.

Table 5: Guideline and warning values for the assessment of heat-treated, ready-to-eat foods[1] (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^6$	---
Enterobacteriaceae	$5x10^2$	$1x10^3$
Escherichia coli	$1x10^1$	$1x10^2$
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Clostridium perfringens	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g
Listeria monocytogenes[2]	---	$1x10^2$

[1] The recommendations for heat-treated ready-to-eat foods shall only apply if no product-specific recommendations exist.
[2] For the examination and evaluation of *Listeria monocytogenes*, the requirements of Regulation (EC) No. 2073/2005 on microbiological criteria for foodstuffs in the currently valid version must be observed.

Table 6: Guideline and warning values for the assessment of delicatessen salads[1] (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count[2]	$1x10^6$	---
Enterobacteriaceae	$1x10^3$	$1x10^4$
Escherichia coli[3]	$1x10^1$	$1x10^2$

	guidance value (CFU/g)	critical value (CFU/g)
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
Lactic acid bacteria[2]	$1x10^6$	---
Yeasts[4]	$1x10^5$	---
Salmonella	---	Not detected in 25 g
Listeria monocytogenes[5]	---	$1x10^2$

[1] The values listed refer to analyses at retail level. The values must be complied with until the best-before date is reached.
[2] If live microorganisms are added as starter cultures or ingredients such as cheese that contain live organisms, this must be taken into account in the assessment.
[3] If *Escherichia coli* is detected, the source of contamination must be traced.
[4] If the guideline value is exceeded, the sensory analysis must be included in the assessment.
[5] For the examination and assessment of Listeria monocytogenes, the requirements of Regulation (EC) No. 2073/2005 on microbiological criteria in the currently valid version for foodstuffs must be observed.

Table 7: Guideline and warning values for the assessment of mayonnaises, dressings and salad dressings (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^6$	---
Enterobacteriaceae	$1x10^3$	$1x10^4$
Escherichia coli	$1x10^1$	$1x10^2$
Lactic acid bacteria	$1x10^5$	---
Yeasts	$1x10^5$	---
Mould fungi	$1x10^3$	---
Coagulase-positive Staphylococcus	$1x10^1$	$1x10^2$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g
Listeria monocytogenes	---	$1x10^2$

Table 8: Guideline and warning values for the assessment of cooked frozen ready meals without raw ingredients, to be heated to consumption temperature (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^5$	---
Enterobacteriaceae	$1x10^2$	$1x10^3$
Escherichia coli	$1x10^1$	$1x10^2$
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g
Listeria monocytogenes	---	$1x10^2$

Table 9: Guideline and warning values for the assessment of raw or partially cooked frozen ready meals or parts thereof that must be cooked before consumption[(1)(2)(3)] (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
Salmonella	---	Not detected in 25 g
Listeria monocytogenes	---	$1x10^2$
Escherichia coli	$1x10^2$	$1x10^3$
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$5x10^2$	$1x10^3$

[(1)] The smallest sales unit, but at least 50 g, shall be used as the sample for the analysis.
[(2)] Salmonella should not be detectable in 25 g. However, due to the widespread contamination of poultry and other animals, the samples can relatively often be Salmonella-positive when raw meat is used, even if good hygiene standards are maintained.
[(3)] In the event of a positive result, the source of contamination must be investigated. Manufacturers are recommended to use only cooked meat for such products. If this is not done, there is a risk of a health hazard to the consumer if a warning "Cooking through required" and precise details of the cooking conditions are not provided; these warnings must be provided on both household packaging and bulk consumer packaging.

Table 10: Guideline and warning values for the assessment of pizza, unbaked, heat before consumption (LUA Sachsen)

	guidance value (CFU/g)	critical value (CFU/g)
Mould fungi	$1x10^3$	---
Salmonella	---	Not detected in 25 g
Coagulase-positive Staphylococcus	$1x10^1$	---
Coliform germs	$1x10^4$	---
Aerobic colony count	$1x10^6$	---
Listeria monocytogenes	---	$1x10^2$
Spores of sulphite-reducing clostridia	$1x10^2$	---

Table 11: Guideline and warning values for the assessment of ready meals, to heat prepared food before consumption (LUA Sachsen)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^6$	---
Coliform germs	$1x10^4$	---
Yeasts	$1x10^3$	---
Mould fungi	$1x10^3$	---
Salmonella	---	Not detected in 25 g
presumptive *Bacillus cereus*	$1x10^2$	---
Clostridium perfringens	$1x10^2$	---
Coagulase-positive Staphylococcus	$1x10^2$	---
Listeria monocytogenes	---	$1x10^2$

Table 12: Guideline and warning values for the assessment of ready meals, prepared meals ready to eat without heating (LUA Sachsen)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^5$	---
Coliform germs	$1x10^3$	---
Yeasts	$1x10^3$	---
Mould fungi	$1x10^3$	---
Salmonella	---	Not detected in 25 g
presumptive *Bacillus cereus*	$1x10^2$	---
Clostridium perfringens	$1x10^2$	---
Coagulase-positive Staphylococcus	$1x10^2$	---
Listeria monocytogenes	---	$1x10^2$

Table 13: Guideline and warning values for the assessment of frozen ready meals, uncooked, to be heated before consumption (LUA Sachsen)

	guidance value (CFU/g)	critical value (CFU/g)
presumptive *Bacillus cereus*	$1x10^3$	$1x10^4$
Salmonella	---	Not detected in 25 g
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
Escherichia coli	$1x10^3$	$1x10^4$

Table 14: Guideline and warning values for the assessment of frozen ready meals, ready-to-eat (LUA Sachsen)

	guidance value (CFU/g)	critical value (CFU/g)
Aerobic colony count	$1x10^6$	---

	guidance value (CFU/g)	critical value (CFU/g)
Listeria monocytogenes	---	$1x10^2$
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g
Escherichia coli	$1x10^2$	$1x10^3$
presumptive *Bacillus cereus*	$1x10^3$	$1x10^4$

Table 15: Guideline and warning values for the assessment of pizza, pre-cooked, deep-frozen (LUA Sachsen)

	guidance value (CFU/g)	critical value (CFU/g)
Coliform germs	$1x10^3$	---
Spores of sulphite-reducing clostridia	$1x10^1$	---
Listeria monocytogenes	$1x10^2$	---
Aerobic colony count	$1x10^5$	---
Coagulase-positive Staphylococcus	$1x10^1$	---
Salmonella	---	Not detected in 25 g

Table 16: Guideline and warning values for the assessment of moist, packaged pasta(1) (DGHM)

	guidance value (CFU/g)	critical value (CFU/g)
presumptive *Bacillus cereus*	$1x10^2$	$1x10^3$
Aerobic colony count	$1x10^6$	---
Escherichia coli(2)	$1x10^1$	$1x10^2$
Enterobacteriaceae	$1x10^2$	$1x10^3$
Listeria monocytogenes(3)	---	$1x10^2$

	guidance value (CFU/g)	critical value (CFU/g)
Coagulase-positive Staphylococcus	$1x10^2$	$1x10^3$
Salmonella	---	Not detected in 25 g

(1) The specified values must be adhered to until the best-before date.
(2) If *Escherichia coli* is detected, the source of contamination should be investigated.
(3) For the examination and evaluation of *Listeria monocytogenes*, the requirements of Regulation (EC) No. 2073/2005 on microbiological criteria for foodstuffs in the currently valid version must be observed.

Revision Information Version 01.01.2025

Criterion	Changes	Date of modification
1.1 Scope	**Addition**: The scope was extended to include the product group fruit, vegetables, potatoes.	01.01.2025

Guideline
Convenience

QS Qualität und Sicherheit GmbH
Managing Director: Dr. A. Hinrichs

Schwertberger Straße 14, 53177 Bonn
T +49 228 35068 -0
F +49 228 35068 -10
E info@q-s.de

Photos: QS

q-s.de