White Paper
Fundamentals of food safety

DEKRA
On the safe side.

Despite intensive monitoring, contaminated or fraudulous food has repeatedly come into circulation in recent years. The need to control risk levels along the entire supply chain in order to ensure worldwide food safety in the future, is therefore constantly increasing. Companies are obligated to comply with a growing demand from the market (retail, catering, and customers) to increase the safety of their products over the long term.

Fundamentals of food safety

In order to be able to offer consumers high-quality and safe food, consistent and risk-oriented monitoring along the entire value chain - starting with feed safety, through production and processing, and ultimately to market - is crucial.In order to ensure comprehensive security, appropriate checks must be carried out in accordance with the applicable regulations and with demands from the market. In addition, correct labeling of food must provide information such as any allergens it may contain and must meet other requirements included into EU regulation n°1169/2011, to avoid any misleading information on labelling, including origin of materials. Transparent information regarding the use of additives is also important,

as they must be authorized accordingly. Due to the fact that food is increasingly being traded globally, opportunities for players in the segment are increasing. Evolving consumer eating habits as well as the development of new ingredients and products are changing previous requirements. Globalization has spurred the introduction of diverse suppliers and providers manufacturing international products. The occurrence of pathogens, pesticides and other hazards has taken on new dimensions and has had a considerable impact on safety.

The pillars of food safety

To achieve a high level of food safety, many gears must mesh. Two factors - the pillars of food safety - are crucial for meeting

the requirements: self-monitoring and official surveillance.

- **The self-monitoring system allows irregularities to be reported directly by producers. This allows an immediate reaction to possible dangers.**
- **Official monitoring primarily serves as a "control of self-monitoring" and is based on national and international standards and legal requirements.**

| Self-monitoring | | Official surveillance |
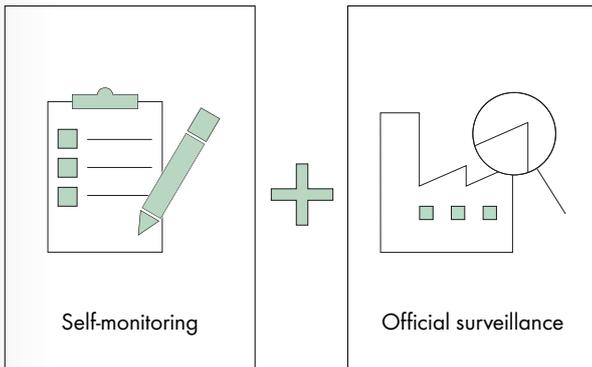
Self-monitoring is the foundation of food safety. Hygiene and certification play a major role.

Food hygiene
Based on the HACCP (Hazard Analysis and Critical Control Points) concept, the hygiene regulation (No. 852/2004) provides mandatory guidelines for all food operators in the EU. It lists all necessary hygiene regulations for the production, processing and distribution of food. Compliance with hygiene regulations must be ensured at all times. This is the only way companies can guarantee high quality and avoid possible health hazards or other negative effects from their products.

Special facilities for food industry hygiene provide services to neutrally and independently monitor company compliance with the specified hygiene regulations.

Certifications in the food sector
In addition to proper hygiene, the inspection and control of not only the ingredients used but also process and final products plays an important role. Companies must prove that they only use food and products from legal sources and that the entire value-added chain is transparently and comprehensibly documented.

Food businesses must also submit a hazard analysis and demonstrate the monitoring of critical control points by means of limit values. A management system according to ISO 22000 offers the optimal basis to help companies identify and, if necessary, control their entire production and delivery environment. In addition, the FSSC standard offers security for the areas of packaging, transport and storage.

As an independent certification body, we offer the verification of compliance with necessary standards as well as the implementation of the specified guidelines and issue the corresponding certificates.

The seven basic principles of food safety
In Europe, seven basic principles apply in order to ensure the optimum safety of products and serve as a guide for the inspection of food businesses.

Basic principles of food safety

Corporate responsibility

Traceability

The official control of foodstuffs

The precautionary principle

The independent scientific risk assessment

The separation of risk assessment and risk management

Transparent risk communication

What happens in case of irregularities?

If irregularities occur, they must be reported immediately. This is where risk communication between the member countries via the Rapid Alert System for Food and Feed (RASFF) comes into play. These notifications contain all important information on the type of product, its origin, the production and distribution channels, the risk it poses, and the measures taken.

At the same time, appropriate warnings are published on the Internet in order to avoid further distribution of the critical foods and provide notification of possible recall actions.

Some food standards at a glance

- **ISO 22000**

The ISO 22000 standard focuses primarily on the identification, evaluation and control of all potential food safety hazards. Thus, the standard provides the optimal basis for the establishment of a management system for food safety and supports the implementation of self-monitoring.

- **FSSC 22000**

The FSSC 22000 standard enables companies to reliably demonstrate the effectiveness of their food and feed safety management system. The standard is recognized worldwide and therefore offers better chances in international competition.

- **HACCP**

The HACCP concept finds its basis in the international guidelines of the Codex Alimentarius Commission within the Food and Agricultural Organization (FAO). The concept offers a systematic approach to demonstrate the safety and security of both the production and handling of food.

- **IFS Series**

IFS stands for the International Featured Standards (IFS) series - the uniform standards for food and food products. The most relevant standard of this series is IFS Food which is an internationally recognized standard for the certification of food manufacturers. This standard ensures comprehensive quality along the entire production chain and that products conform to the required specifications.
Other IFS standards are:

- IFS Logistics : for storage and transportation
- IFS Broker : for broker / trading activities
- IFS Wholesale / Cash & Carry : for wholesalers, connecting producers and manufacturers, and connecting manufacturers and smaller retailers / caterers

- **BRCGS Global Standard for Food Safety**

With BRCGS for Food Safety, the British Retail Consortium (BRC) defines framework conditions for various sectors of the food chain. It sets clear requirements for food safety and is aimed at food manufacturers who primarily produce products for the British market, but also parts of Asia or the USA.

	Focus	Aimed at...
ISO 22000	Global standard for food safety management systems	... all companies that are directly or indirectly involved in the value chain in food production
FSSC 22000	Standard to ensure food safety in food production	... companies within the entire food chain
HACCP	Risk analysis and critical control points for the production and handling of food	... all companies that produce, process or distribute food
IFS Food	Production and processing as well as packaging of loose packed food	... suppliers along the entire food processing chain and companies where unpackaged food is packaged
BRCGS for Food Safety	Contains the sets of rules for suppliers in the food industry that have been defined as binding by several retail chains	... producers of primary products and already processed products, food processors and packaging companies in the food sector

The legal framework for food operators in the EU

Food business operators in primary production are subject to the general hygiene rules (good hygiene practice) laid down in Annex I of EU Regulation (EC) No 852/2004, which must be complied with accordingly in order to meet the requirements for adequate food safety. This particularly concerns the protection of primary products from contamination and residues of harmful substances.

Food business operators involved in the production, processing and distribution of food must comply with the general hygiene regulations set out in Annex II of EU Regulation (EC) No 852/2004 including, for example, requirements for the safety of premises, rooms, transport, water supply, staff hygiene and other rules.

Operators who produce, process or distribute food of animal origin are additionally subject to the hygiene requirements of Regulation (EC) No 853/2004. Establishments producing food of animal origin are in principle required to apply for additional approval.

How can we support you?

Active over several decades, we are internationally recognized as a neutral and independent testing service provider. We have the comprehensive knowledge and practical experience needed to support our daily testing routine. Our specialists keep track of all developments in food safety and are therefore aware of all progress and every trend. Our deep understanding of the requirements and legal specifications for safety in the feed and food sector makes us the right partner for your project. You can trust us to provide you comprehensive and up-to date information on hygiene regulations and individual standards.

Are you interested in certification to effectively and sustainably improve food safety in your company? Talk to our experts today!

Other services from which you benefit

We can certify further quality, environmental and safety management systems, e.g. according to ISO 22000, the IFS series and HACCP as well as their combinations. Our portfolio contains over 40 accreditations! In addition, the DEKRA Group offers you everything to do with quality:

- **2nd party audits with the assessment of compliance with internal requirements, as well as client specifications (suppliers audits)**
- **Training and education**
- **Personal certifications**
- **Product testing and certification**

The DEKRA seal of excellence

Signaling maximum quality and reliability – across different industries and internationally – the DEKRA seal is an excellent hallmark and marketing instrument which sets you apart from the competition. Use it to show your customers and business partners the value of what you offer. We are here to help you.

DEKRA Audits

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