

Safer Food Trusted Brand Better Business

Quality and safety management system in the food industry



In an increasingly competitive environment, food quality and safety management provides a modern and holistic approach in addressing quality and safety issues throughout the food chain, providing a competitive advantage to food and food services companies. It applies to each step/operation across the industry, providing a solid framework enabling companies to prevent food borne hazards at multiple levels as well as standardise the quality of their outputs and guarantee compliance with requirements of different markets. Therefore every food related business, regardless its size or position within the food chain, should have in place a food quality and safety management system comprehensive enough to ensure food is not only safe but also lives up to consumer expectations and regulatory requirements.

A good food safety management system allows companies to offer safer food, building a trusted brand, and achieving better business.

Why traceability suddenly becomes so important?

There is a surge of need for traceability in recent years after outbreaks of a series of food safety incidents and rounds of large scale recalls. The global food supply chain today is getting more complex as companies seek to enhance their capabilities to fulfill the world's growing demand in quality food. Traceability not only plays an important role in food safety management, it is becoming an essential tool to build trust between producers and consumers.

Traceability enables food companies to clearly identify products having any safety, quality or legal risk which may induce the business financial and legal impacts and enable withdrawal from the supply chain in a timely manner. It also avoids the loss attributed to prospective recalls and minimises disruption to trade and reduces potential public health risk.

Traceability is a tool that can be used to provide information that would help to build trust between consumers and producers. By providing a full picture of the operations involved in the production of food items, it increases transparency and boosts trusts between players across the food chain, ultimately enhancing the business image and competitiveness.

GS1 Hong Kong Quality Food Traceability Scheme

The **GS1 Hong Kong Quality Food Traceability Scheme** (also name as Food Scheme) provides an all-round assessment based on the **GS1 Global Traceability Standard** and **Global Traceability Conformance** on interoperable food traceability. It defines a comprehensive set of traceability requirements suitable for local food businesses to achieve full chain traceability.

This standard allows an end-to-end traceability system, linking the flow of information to physical products. In an event of a food safety outbreak, the sharing of traceability information between trading partners in the supply train is critical to ensure a targeted and effective recall.

Who would be benefited from joining?



Manufacturers



Distributors/traders



Food services providers



Retailers

Benefits for businesses

- **Increased trust and reputation** of the business within the existing customer base as well as through the food chain **by providing a higher degree of transparency of the food chain**;
- **Improved efficiency** in managing due diligence documentation and internal records **by helping the business in finding more time efficient and cost effective solutions**;
- **Brand protection** by offering simple and time effective tools to enable **efficient management of critical situations** such as product withdrawal and recalls in the unlikely occurrence of an incident;
- **Capability to provide real-time and accurate documentation** requested by trading partners such as product specifications and production records;
- **Efficient tool to test the efficiency** of the company quality and safety management system and **perform gap analyses** aimed to the continuous improvement of the system itself.

GS1 Global Traceability Standard

GS1 created the Global Traceability Standard (GTS) with an aim to serve as a recognised reference for companies to implement traceability system. GTS was developed by a community of more than 800 companies from Asia, Europe and the Americas regions representing retailers, suppliers, GS1 Member Organisations and solutions providers in a wide range of industries. GTS makes traceability systems possible on a global scale for both small and large organisations, throughout the supply chain regardless of the numbers of companies involved and the enabling technologies applied.

The GS1 GTS does not compete with other international standards such as the ISO, Safe Quality Food (SQF), British Retail Consortium (BRC) Global Food Standards, Food Marketing Institute, GLOBALG.A.P, Hazard Analysis Critical Control Point (HACCP) or various other certifications. In fact, GS1 helps companies and organisations meet the demands of these standards and certification by providing the tools to achieve the required levels of traceability.

The GS1 Global Traceability Standard is the basis of GS1 Global Traceability Compliance Criteria for Food, a document used to evaluate critical points within a traceability system. Companies can verify the quality and integrity of their existing traceability system using this checklist with the help of our traceability experts.



GS1 standards enabling traceability

Information Flow

Foundation: Collection of information and location identification

Other transactional and event

GTIN + Lot (raw materials)
Date + time
GLN of farm
Produced (biz step)

GTIN + Lot (final product)	SSCC
Date + time	Date + time
GLN of plant	GLN of shipping area
Produced	Packed

Physical Flow

Grower/Supplier



- GTINs + batch/lot are used to identify produce in cases/bulk.
- SSCCs are used for products distributed from the farms with batch/lot information.
- Each physical location is identified with a GLN.

Manufacturer



- Internal traceability is maintained in the key processes: receiving, transformation of raw materials to semi-finished or finished goods, storage and distribution.
- GTINs and production data (batch/lot & expiry date) are printed on products to be despatched.
- Links between goods received and despatch of final product are always maintained through the GTINs and batch/lot numbers.

Note: All GS1 keys are available in a barcode format. All GS1 key numbers highlighted above are for illustration purposes only and should not be used.

Traceability in the food supply chain

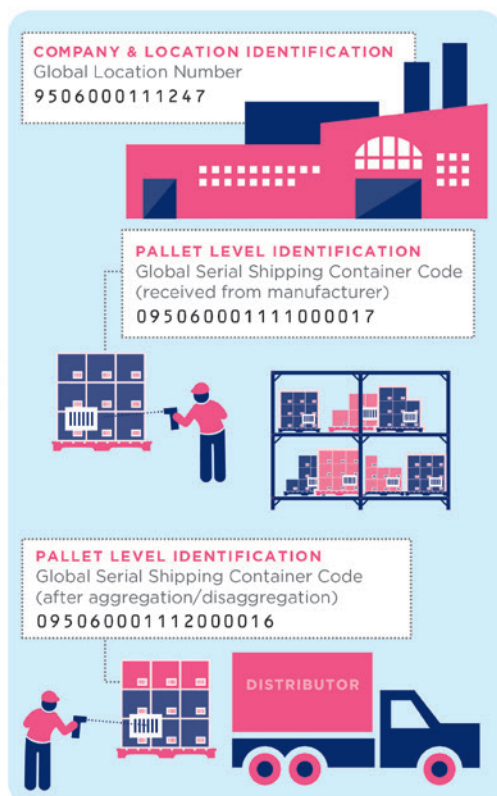
of master data such as product
on of trading partners in the supply chain

Events-based traceability data

SSCC	SSCC
Date + time	Date + time
GLN of warehouse/DC	GLN of warehouse/DC
Delivered	Shipped

GTIN + Lot	GTIN + Lot
Date + time	Date + time
GLN of retail store	GLN of retail store
Received and stored	Sold to customer

Warehouse/Distribution Centre



- Internal traceability is maintained in the key processes: receiving, cross-docking, storage and distribution.
- GTINs + batch/lot or expiry date is used to assure accuracy of picked products when aggregated and disaggregated. These cases are linked and tracked with pallet using the SSCC.
- Despatch Advice containing GTINs, SSCC and GLNs is sent to customers.

Retailer



- Retailers provide product information to their customers at POS.
- Master data and event data (for traceability purposes) can be provided to consumers on product labels or through scanning of barcodes.

Case Study

Business:

DCH Logistics Company Limited



Challenge: The rapid expansion of international trading and modern food supply chain is instrumental in bringing to consumers the benefit of a wider choice of more diversified, lower-cost and convenient food. The accelerated growth in globalised food supply has nonetheless brought with it hidden food safety risks, requiring advanced global supply chain management of industry stakeholders to ensure product quality and consumer health and safety. This is of particularly crucial importance to Hong Kong where over 90% of the food is imported from abroad.

Further, the risk associated with temperature-sensitive food products demand even higher requirements on storage facilities and shipment arrangements. Any incident or improper temperature control at any point of the entire supply chain will not only ruin the quality of the products but also pose harm to consumers' health and the brand integrity of the business.

GS1 GTS and Cold Chain Management Solution

With the mission to ensure food safety throughout the end-to-end logistics from source to client, DCH Logistics extends the traceability application to its upstream suppliers. GTS is firstly deployed in the fruit and frozen meat category to identify the critical product processing points. On supplier's side, unique GS1 codes such as GTIN and SSCC are assigned to each packaged product the logistics units. All this outbound logistics unit information and shipment data will be shared to relevant parties through a track and trace platform, ezTRACK™, built on the Electronic Product Code Information System (EPCIS) visibility standard. DCH Logistics, as a logistics provider can enjoy accurate traceability information from the platform and speed up the order processing upon product arrival.

Further, DCH Logistics adopts RFID-based cold chain solution tailored made to the temperature sensitive food products, such as confectionery. With the RFID sensors installed, temperature and humidity can be continuously monitored during each critical logistics point, including storage, packaging dispatching and delivered alongside the entire supply chain till client's receipt confirmation. The monitored information can be constantly accessed through ezTRACK™.

Benefits

With enhanced traceability and visibility through the RFID-based cold chain management and ezTRACK™ platform, DCH can readily monitor and detect any irregularities that may have a deleterious effect on the quality and safety of the products. Specifically DCH can now:

- Obtain accurate temperature records to identify any damage or compromise to the products, greatly enhancing consumer safety.
- Record information in electronic forms, reducing human cost and improving information exchange accuracy and efficiency.
- Connect various stakeholders along the supply chain seamlessly and minimise time delay during the shipment process.
- Achieve full supply chain visibility, providing confidence to both its upstream and downstream trading partners.

What can GS1 Hong Kong help?

1. Comply with International Standard

Building on the GS1 Global Traceability Standard framework and referencing to worldwide GSFI recognised schemes (ie. ISO 22005, ISO 9001, HACCP, BRC etc.), the Quality Food Traceability Scheme ensures to assess your business against an up-to-date international standard checklist and provides recommendation with the latest, most applicable technologies.

2. Analyse your business need

Each company receives an assessment and a unique audit report focusing on their business needs. GS1 understands every business has its own objectives. Through the Food Scheme audit report, we will be able to identify the areas for improvement, hence enable companies to realize financial benefit while meeting their business objectives.

3. Develop hands-on strategies through collaboration

GS1 offers professional consultation and training by our experienced certified auditors. Companies and individuals could extend their knowledge in food traceability and strengthen the existing system with cost-effective solutions to achieve better results.



Standards

GS1HK Global traceability

GS1 Global Traceability Standard was developed by a community of more than 800 companies worldwide with an aim to serve as a recognized reference for companies to implement traceability system.

GS1 helps companies and organizations meet the demands of other international standards and certification such as ISO, SQF, BRC etc. by providing the tools to achieve the required levels of traceability.

Training

GS1HK Training

A practical workshop to provide strategic guideline from theory to implementation and case studies to uplift your corporate traceability

- 2 day training workshop
- Basic theory to case sharing and in-class activities
- VTC New Technology Training Scheme (NTT)'s accredited course – up to HKD2,000 subsidy for each eligible applicant

Assessment

(with a recognition program- Quality Food Traceability Scheme)

GS1HK food scheme

An award program to provide a thorough assessment of your company's operation management process and system, as well as to recognize your traceability best practice. Includes:

- 1 day on-site food traceability assessment within Hong Kong
- Food traceability report
- Recommendation report
- Post-assessment review
- meeting
- Recognition award
- ceremony
- Marketing exposure

Consultancy

GS1HK consultancy service

A tailor-made deployment service to assist you to enhance current product flow of goods from supplier receiving to vanished products releasing in order to achieve a global standards complied food traceability system.

4 main steps:

- **Identification:** how traceability items are identified and coded?
- **Operations:** how traceability works and how crisis are managed
- **Information:** what information is being used and given?
- **Procedures:** how traceability is acknowledged and documented?

For more GS1HK Food and Food Services information:



GS1 Hong Kong

22/F, OTB Building, 160 Gloucester Road, Wanchai, Hong Kong
T (852) 2861 2819 | F (852) 2861 2423 | E info@gs1hk.org

www.gs1hk.org

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