

Transport and Storage

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GFSI Intermediate Requirement

- All raw materials (including packaging), intermediate/ semi processed product and finished product shall be stored and transported under conditions that protect product integrity. All vehicles, including contracted out vehicles used for the transportation of raw materials (including packaging), rework, intermediate/ semi processed product and finished product shall be suitable for the purpose, maintained in good repair and be clean.

Key Criteria

- Warehousing
- Storage Conditions
- Stock Control
- Transportation Conditions
- Bulk Storage

Warehouse Facilities



- Well organised
- Segregated into raw material and finished product
- Inspected regularly
- Clean
- Dry
- Well illuminated
 - Protected from;
 - Dust
 - Condensation
 - Fumes
 - Odours
 - Pests

Raw Materials, Semi Processed and Finished Product Storage Conditions

- Product must be stored under optimal conditions in accordance with the product specification; for example oils should be stored in conditions to prevent oxidation
- Identify and control high risk products
- Where product is stored outside product , including packaging, should be protected from contamination and deterioration
- Factors for consideration
 - Temperature
 - Humidity
 - Exposure to light
 - Controlled atmosphere; for example fresh fruits



Product Protection

- Waste should be clearly identified and segregated from product
- Isolate chemicals from raw materials, semi processed product and finished product
 - Cleaning materials
 - Lubricants
 - Pesticides
 - Water treatment chemicals
- Quarantined non-conforming product

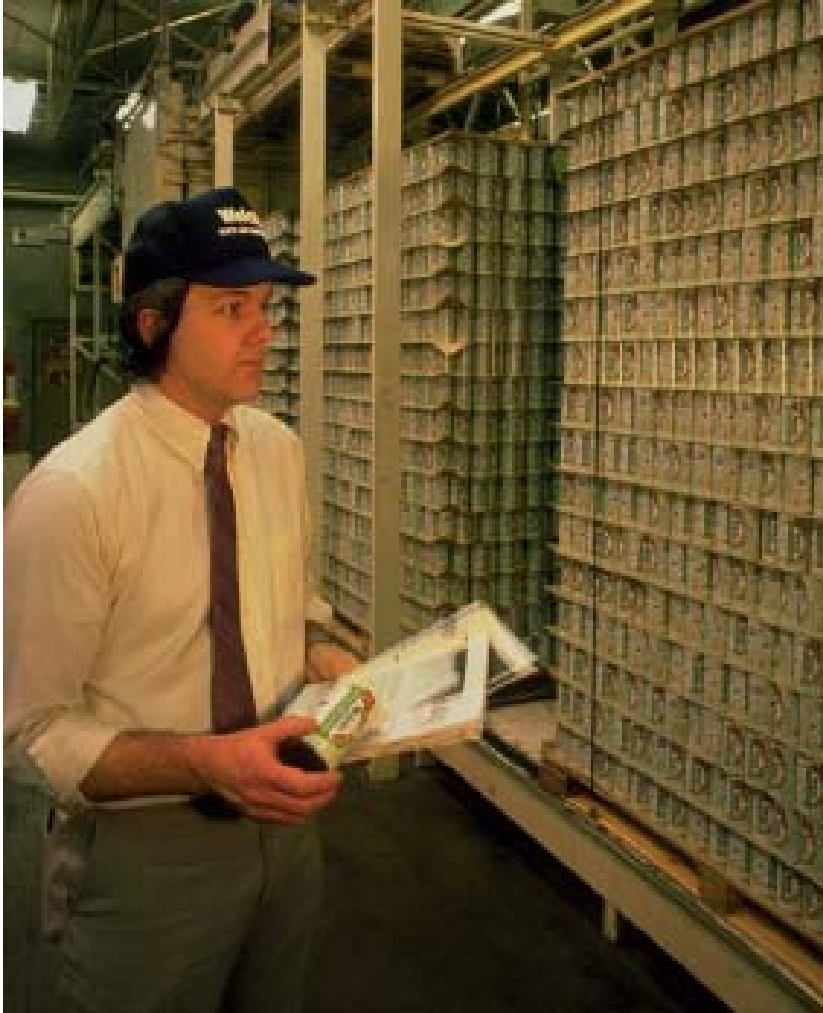


Bulk Storage Containers



- Where products are stored in bulk i.e. drums, silos and bunkers these shall be dedicated for food use only
- Silos used for raw materials shall be subject to regular inspection and emptied cleaned at defined intervals
- Bulk containers shall be suitably designed and from food grade material
- Old bulk containers of unknown origin shall not be used to store product
- Bulk storage containers shall always have clear identification of contents and relevant information for example storage conditions, production date and expiry date

Stock Control



- Effective stock control systems and accurate records should be in place
- Stock control is vitally important to the total supply chain to ensure safety, quality and waste control
- Accurate record keeping is critical to ensure an effective traceability system

Stock Control Principles

FIFO= First In First Out

- Internal system to ensure raw materials are used 'in sequence'

FEFO= First Expired First Out

- System to ensure despatch of earliest expiration date first
 - Control of 'freshness'
 - Control of waste within the supply chain
 - Accurate record keeping is essential



Transportation



- Product shall be transported under optimal conditions; for example temperature and humidity
- Vehicles and containers must be in a good state of repair and cleanliness
- Vehicles and containers shall protect the product from damage or contamination
- Knowledge of logistics company standards is essential
- Understand of environmental conditions during transportation is essential; for example temperature and length of period of transportation

Transportation Controls

- Control vehicle hygiene using the same principles as factory hygiene standards
- Control loading and unloading to reduce damage and staff should be trained in the correct procedures to protect product safety and integrity
- Where temperature controlled vehicles are used these should be capable of maintaining temperature (chill units on vehicles are not designed to reduce temperature)
- Consider the use of temperature data loggers to verify conditions of transport

Contamination

- If vehicles and containers are used for food and non-food products, cleaning and inspection is essential to minimise the risk of contamination
- There are many examples of contamination of bulk shipments of food by chemicals such as petrochemicals and dioxins
- Vehicle and container inspection systems should be in place prior to loading consignments of products
- Include recorded data as part of the traceability system



Procedures and Documentation

- Documented procedures in relation to product storage and transportation shall be in place
- The procedures shall include vehicle and container inspection controls.
- Storage and transportation records are essential to be included in the company traceability system.
- Specified documented procedures are required for chilled distribution which will include:
 - loading procedure
 - breakdown in transit procedure
 - cleaning procedures
 - maintenance schedule and procedures

Summary - Storage and Transportation

- Systems and procedures are in place during production to ensure the safety and quality of product . Control during storage and transportation is essential to maintain this safety and quality
- The results of poor storage and distribution is highly costly
- Good storage and transportation systems can significant reduce waste throughout the supply chain

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