

# Your 5-point guide to a better cold chain experience



**Safeguarding perishables along their entire journey is the foundation of cold chain logistics. Precise and reliable temperature control from source to destination ensures products reach consumers around the world at maximum freshness.**

Everything from weather to infrastructure to local regulations can compromise the condition of your shipment. Understanding where challenges may arise, provides opportunities for proactive intervention. You can avoid unwelcome surprises by mastering the five key factors for transporting perishables that arrive ready for every market.

# 1

## Temperature

**Maintaining temperature integrity for the duration of each shipment is essential. Even the slightest fluctuation can result in high percentages of premature spoilage, preventing products from reaching consumers.**

There is always a possibility for cargo to exceed permissible or safe temperature levels, even if only briefly. Refrigeration equipment is not always reliable and conditions can vary as products pass through multiple handlers during the distribution process.

Quality depends on visibility. When products are subjected to unfavourable conditions, receiving immediate alerts is invaluable. Kuehne+Nagel uses real-time data that lets you quickly and easily monitor the shelf life of products and ensure regulatory standards are met.



**While no logistics partner can guarantee an ideal temperature at every milestone, they can provide precise readings with devices applied directly on the packaging.**

# 2

## Documentation and processes

**Whether issuing health certificates or commercial invoices, preventing delays begins and ends with preparing accurate documentation.**

Even the smallest mistake can block or delay customs clearance at the destination. Countries have specific requirements that must be met—you have to know these in advance. As an example, in Middle East countries, labelling has to be in Arabic to be able to enter the market.

Standardised processes prevent errors and subsequent claims, while reducing food loss or waste.



**With a global network of cold chain experts and air logistics stations, Kuehne+Nagel's strict procedures consistently handle perishable foodstuffs according to existing regulations.**



## 3

# Packaging

**Proper packaging plays a fundamental role in protecting your cargo and affects both quality and shelf life.**

**The methods to achieve temperature control during shipping vary depending on the type of cargo:**

- Insulated packaging is the primary way to protect perishables and includes Styrofoam, cardboard, and thermal blankets.
- Refrigerant gel packs (phase change materials or PCMs) are a frequently used option to add more control.
- For food that can thaw or perspire, you need leak-proof packaging with features like plastic liners.
- Some goods require airtight packages to limit damage during travel and others ship with dry ice which is effective for keeping perishables frozen.

To further reduce the risk for lost or mishandled cargo, goods should always be easily identifiable as perishable. Each package must be clearly labelled with consignee details and have markings for special instructions to indicate the handling position (“This way up”) or dangerous goods when using dry ice.

Kuehne+Nagel can provide passive temperature control packaging to give your delicate perishables the extra protection they need.

**Even with a reliable cold chain partner who ensures goods spend minimal time outside of a temperature controlled environment, the unexpected can happen.**



# 4

## Food safety

**Maintaining shelf life is always a race against the clock. Perishable foodstuffs require a high degree of care for every minute they are in storage and transport. Both temperature deviation and cross-contamination can cause spoilage, leading to unacceptable product loss.**

Build resilience into your cold chain with practices that ensure optimal, temperature controlled transit times. By using the latest technology to monitor temperature data, you create opportunities for real-time decision making that reduces food waste. When you work with professionals who prioritise safety and compliance,

you lower risk and increase expertise from origin to destination.

Developing proactive communication protocols with partners helps you get timely responses to questions about product handling, carrier and route selection, and international regulations.

Every new shipment resets the clock. Take advantage of all the tools Kuehne+Nagel's certified perishables team has to offer and keep food safety at the centre of your cold chain.

**Your best defence is planning and implementing preventative measures that focus on food safety.**



# 5

## Logistics partner

**It's vital to keep unforeseen events from becoming roadblocks. Skilled logistics partners can help you navigate those hurdles, but how do you choose the right one?**

Cold chain success depends largely on a combination of know-how, experience and flexibility. Look for providers who offer end-to-end visibility of your shipments, letting you drive decisions with better data. Because reducing food waste is your priority, you need global standardised processes, in-transit temperature monitoring, and teams trained to handle delicate products. To avoid delays, work with a partner

who understands regulations in every country where you do business.

When products have to arrive at peak freshness, Kuehne+Nagel designs solutions that transports them safely to their destination.

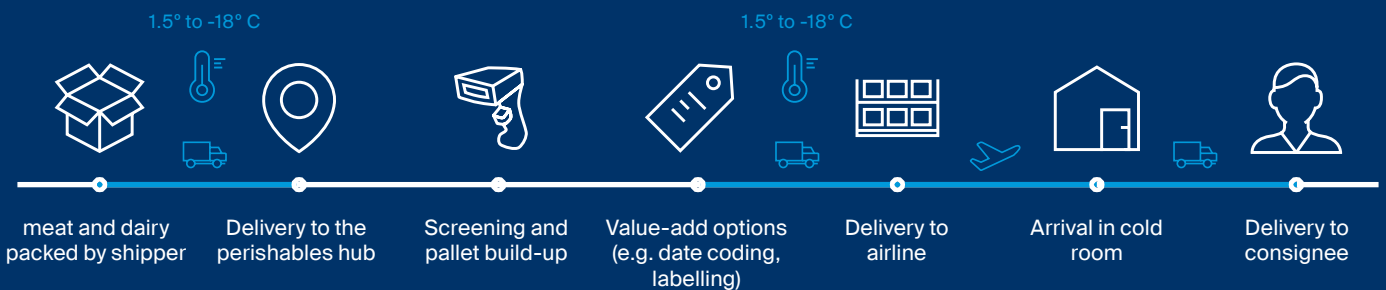
**A trusted logistics partner minimises disruptions while offering effective alternatives for your specific challenges.**



# Perishables food journey

## Temperature controlled

### Air freight



### Sea freight

