



Transport Risk Management



Protecting pharmaceutical products in transit and distribution

2. Care of temperature-sensitive products

The following are a list of topics which should help to minimise the risk of loss or damage to pharmaceutical products whilst in transit. These have been developed by consultation and working with various manufacturers and suppliers of pharmaceutical products and their logistics partners. In climates where the daily temperature is frequently above 30°C or below 0°C for more than one month per year, consideration should be given to providing insulated, refrigerated or heated transport facilities. Special provision should be made for the transport of vaccines or similar which have to be held under either refrigerated or sub-zero conditions. The following are some examples of procedures adopted by some organisations for temperature-sensitive products.

To protect from temperatures in excess of 30°C:

Normally no problems are anticipated with products in this range as extensive research has shown that exposure in excess of this temperature is usually limited to a few hours. However, transport labelling should encourage stowage away from direct sunlight and other sources of heat.

To protect from temperatures in excess of 25°C:

When exposure to high temperatures is anticipated 'temperature controlled' containers should be used. If these are not available the use of airfreight should be considered. Such temperatures may be experienced during surface transportation through the tropics, whilst being held before or after air transport or during overland transportation through more moderate climates during summer months. The effects of exposure of a container or truck to higher temperatures may also be reduced by the use of insulating materials or positioning temperature sensitive products in the centre of the stow and away from the sides and top of the cargo compartment.

To protect from temperatures as described above plus must not be frozen:

Overland transport of more than 24 hours duration should be avoided through Europe and North America from November to March inclusive unless weather conditions indicate that exposure to sub-zero temperatures is unlikely and appropriate insulation (or heating) is provided. All outer transport cases/cartons should be labelled "Do Not Freeze". We understand some creams and certain sugar free solutions are particularly vulnerable to freezing damage.

To transport goods in the range +2°C to +8°C:

Refrigerated containers by land and sea are required or airfreight with refrigeration (not deep freeze) at port of loading, (any transshipment port as relevant) and unloading port. When rapid transit within temperate climate zones can be guaranteed during the cooler months of the year, the use of well-insulated boxes alone may be appropriate.



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