



PACKING GUIDE

FOR TEMPERATURE SENSITIVE SHIPMENTS







TEMPERATURE SENSITIVE SHIPMENTS

At DHL Express, we know how critical it is to maintain a defined temperature range for your shipments. We have therefore developed an extensive range of packaging solutions to suit.

The different box sizes within each temperature range allow you to select the most efficient solution whilst ensuring temperature stability.



PACKAGING RANGE

| | Temperature Category | Features |
|---|----------------------|---|
|  | Ambient | Designed for the transportation of up to six vials of Category B UN3373 biological substances. Our ambient boxes are delivered as complete solutions that include Absorbent Sleeves, Pressure Bags, Coolant Wraps, and packaging instructions within the box. |
|  | Room Temperature | Designed to cope with a controlled room temperature environment between 15°C and 25°C for up to 72 hours. The boxes are available in small, medium and large sizes and are supplied with different sized Pharmacool Cassettes. |
|  | Chilled | Designed to cope with a chilled temperature environment between 2°C and 8°C for up to 108 hours. Box sizes are the same as those used to ship contents at controlled room temperatures. |
|  | Frozen | Designed for sending contents at temperatures below minus 20°C, for up to 129 hours whilst also ensuring a stable air pressure. Available in 3 sizes with the largest providing 28 litres of product space. |

Each box is supplied as a complete solution and includes handling instructions specific to each temperature category.

Where required, DHL Express can also provide dry ice or coolant wrap preconditioning services, as well as temperature monitoring solutions. Please contact your local [DHL Express](#) for more information.

AMBIENT TEMPERATURE SOLUTIONS

Designed for the transportation of Category B UN3373 biological samples, the DHL ambient packaging range can carry up to six 10ml vials per box.

For ambient transportation DHL Express can offer three packaging systems that are designed for different temperature environments.

- Ambient Non-insulated
- Ambient Insulated
- Ambient Extreme

If transporting Category B UN3373 biological samples, the sender must comply with all local and international laws on classifying, packing and labelling these shipments. All Category B UN3373 shipments must be shipped according to IATA and ICAO regulations.



Note: Any shipments that do not conform to local and international regulations will not be accepted by DHL. The advice given below does not replace any shipping regulations or instructions as laid out by IATA or ICAO.

AMBIENT NON-INSULATED

For the transportation of non-temperature sensitive biological substances:

| Packaging Components | External Dimension | Product Space |
|--|----------------------|----------------|
| 1 x Outer Carton 1 x 95ka Bag 1 x Absorbent Sleeve 1 x Bubble Bag | 23.5 x 19.4 x 12.1cm | 6 x 10ml Vials |



AMBIENT INSULATED

For the transportation of temperature sensitive biological substances, this packaging system offers ambient shipments an extra layer of protection against changing external temperatures.

| Packaging Components | External Dimension | Product Space |
|--|----------------------|----------------|
| 1 x Outer Carton 1x 95ka Bag 1x Absorbent Sleeve 1 x Air Pillow 2 x Coolant Wraps 1 x Insulated Liner | 23.5 x 19.4 x 12.1cm | 6 x 10ml Vials |

AMBIENT EXTREME

This unique packaging system provides thermal protection from extreme temperature fluctuations that might occur during transit. Using DHL ambient extreme packaging will keep the temperature of your ambient shipments above 0°C for 48 hours.

| Packaging Components | External Dimension | Product Space |
|---|----------------------|----------------|
| 1 x Outer Carton 1x 95ka Pressure Bag 1x Absorbent Sleeve 2 x Coolant Wraps 1 x EPS Box | 28.9 x 24.1 x 17.8cm | 6 x 10ml Vials |

CONTROLLED ROOM TEMPERATURE SOLUTIONS

Designed to cope with a controlled room temperature environment between 15°C and 25°C for up to 72 hours. The boxes are available in small, medium and large sizes and are supplied with different sized Pharmacool Cassettes. Handling instructions for summer and winter temperature profiles are provided to allow for correct preconditioning of the Pharmacool Cassettes.



| Box Size | Content | External Dimensions | Product Space | Temperature and Duration |
|----------|--|----------------------|-----------------------------------|------------------------------|
| Small | 1 x Outer Carton 1 x EPS Insulated Cooler 6 x 1350g Pharmacool Cassettes 1 x Product Carton | 47.5 x 44.0 x 37.0cm | 25.0 x 21.4 x 13.0 (7 litres) | 15°C to 25°C for 72 hours |
| Medium | 1 x Outer Carton 1 x EPS Insulated Cooler 6 x 2400g Pharmacool Cassettes 1 x Product Carton | 56.4 x 51.4 x 43.5cm | 34.4 x 26.4 x 15.3 (14 litres) | 15°C to 25°C for 72 hours |
| Large | 1 x Outer Carton 1 x EPS Insulated Cooler 2 x 2000g Pharmacool Cassettes 4 x 3000g Pharmacool Cassettes 1 x Product Carton | 63.2 x 53.2 x 50.5cm | 38.5 x 28.5 x 25.0 (28 litres) | 15°C to 25°C for 72 hours |

CHILLED TEMPERATURE SOLUTIONS

Designed to cope with a chilled temperature environment between 2°C and 8°C for up to 108 hours. Box sizes are the same as those used to ship contents at controlled room temperatures. The preparation of the Pharmacool Cassettes will create a chilled environment which will be maintained for the desired time. Available instruction sheets will guide you through the correct preparation process.



| Box Size | Content | External Dimensions | Product Space | Temperature and Duration |
|----------|--|----------------------|-----------------------------------|-----------------------------|
| Small | 1 x Outer Carton 1 x EPS Insulated Cooler 6 x 1350g Pharmacool Cassettes 1 x Product Carton | 47.5 x 44.0 x 37.0cm | 25.0 x 21.4 x 13.0 (7 litres) | 2°C to 8°C for 85 hours |
| Medium | 1 x Outer Carton 1 x EPS Insulated Cooler 6 x 2400g Pharmacool Cassettes 1 x Product Carton | 56.4 x 51.4 x 43.5cm | 34.4 x 26.4 x 15.3 (14 litres) | 2°C to 8°C for 108 hours |
| Large | 1 x Outer Carton 1 x EPS Insulated Cooler 2 x 2000g Pharmacool Cassettes 4 x 3000g Pharmacool Cassettes 1 x Product Carton | 63.2 x 53.2 x 50.5cm | 38.5 x 28.5 x 25.0 (28 litres) | 2°C to 8°C for 96 hours |

FROZEN TEMPERATURE SOLUTIONS

Designed for sending items at temperatures below minus 20°C. Dry ice is the most commonly used refrigerant to keep product or samples frozen. Dry ice is available in several forms such as pellets, sticks or plates. For transport by air, dry ice is regulated and considered a dangerous good. Dry ice sublimates and displaces oxygen so boxes should never be hermetically sealed when they contain dry ice. These frozen temperature solutions ensures air pressure does not build up and an environment below minus 20°C can be maintained for up to 129 hours.



Note: A dry ice supply service can be arranged separately. Please speak to your DHL Sales Executive for details.

| Box Size | Content | External Dimensions | Product Space | Temperature and Duration |
|----------|--|----------------------|--|--------------------------|
| Small | 1 x Outer Carton 1 x EPS Insulated Cooler | 31.0 x 31.0 x 32.0cm | 9.5 x 9.5 x 13.5 or 6 x 10ml vials | < -20°C for 124 hours |
| Medium | 1 x Outer Carton 1 x EPS Insulated Cooler | 34.8 x 34.8 x 36.4cm | 10.0 x 10.0 x 2.5 or 12 x 10ml vials | < -20°C for 122 hours |
| Large | 1 x Outer Carton 1 x EPS Insulated Cooler | 39.5 x 39.5 x 44.8cm | 18.0 x 14.5 x 15.0 or 36 x 10ml vials | < -20°C for 129 hours |



COMBINATION: FROZEN AND AMBIENT

The combination temperature solution is an addition to the DHL Thermo Packaging range that can accommodate the shipping of frozen and ambient samples within a single box.

| Content | External Dimensions | Product Space | Temperature and Duration |
|--|----------------------|---|--|
| 1 x Outer Carton 2 x EPS Cooler 2 x Cooler Wraps | 29.5 x 24.4 x 44.2cm | 6 x 10ml vials ambient and 6 x 10ml vials frozen | < -20°C for 72 hours (for the frozen element) |