



Pointers on Shipping:
Clinical Samples,
Diagnostic Specimens
and Environmental
Test Samples



At FedEx® Express, we understand the importance of ensuring the safe transport of clinical samples such as human or animal materials, including excreta, secreta, blood (including FDA-approved pharmaceuticals that are blood products), tissue and tissue fluids, as well as environmental test samples of soil and water. Our objective is to deliver these special shipments safely to their destinations in the same good condition as we receive them from you.

This brochure provides essential pointers to help you meet FedEx® Express requirements on the proper packaging of these materials. In addition, all shipments must comply with all applicable local, state and federal laws governing packing, marking and labeling. Blood, urine, fluids and other specimens containing or suspected of containing infectious substances must be shipped according to applicable government and IATA regulations. For more information, call 1.800.GoFedEx® 1.800.463.3339 and press "81" to reach the Dangerous Goods/Hazardous Materials Hotline.

The illustrations depicted here illustrate sample packaging that is acceptable for shipping clinical samples such as human or animal materials, including excreta, secreta, blood (including FDA-approved pharmaceuticals that are blood products), tissue and tissue fluids, as well as environmental test samples of soil and water. All of the packaging illustrated is acceptable and may be used in any combination as long as the four basic requirements for acceptable packaging are met.

NOTE: Specific requirements for Diagnostic Specimens are highlighted and underlined below.*

GENERAL ACCEPTABLE PACKAGING

Proper packaging of diagnostic specimens and environmental test samples includes four basic requirements:

1. Watertight Primary Receptacles
2. Watertight Secondary Receptacles
3. Absorbent Material
4. Sturdy Outer Packaging

NOTE: Internal filler or cushioning is recommended to protect contents and limit movement.

1. Watertight Primary Receptacles

All primary receptacles must have positive closures (such as screw-on, snap-on or push-on lids) that must be taped.

For Diagnostic Specimens, primary receptacles may be glass, metal, or plastic. Positive means of ensuring a leak proof seal, skirted stopper, or metal crimp seal must be provided. Reinforce screw caps with adhesive tape.

*These can be reviewed in the IATA dangerous goods regulations Packing Instruction 650.

For Liquid Specimens, the primary receptacle(s) must be leakproof **and must not contain more than 500mL.**

The primary or secondary receptacle(s) must be able to withstand, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa in the range of -40C to +55C (-40F to 130F).

For Solid Specimens, the primary receptacle(s) must be siftproof **and not contain more than 500 g.**



Plastic Canister



Glass/Plastic Jar



Glass/Plastic Vial

2. Watertight Secondary Receptacles

To prevent contact between multiple fragile primary receptacles, individually wrap or separate each and place inside a leakproof secondary receptacle.

For Diagnostic Specimens, enclose an itemized list of contents between the secondary packaging and the outer packaging. These illustrations below are not intended to represent secondary containers for diagnostic specimens. Diagnostic specimens secondary containers must be certified by the manufacturer prior to use.



Sealed Styrofoam™ Container
(1" thick minimum)



Sealed Plastic Bag



Plastic Canister



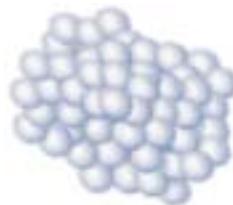
Screw-Cap Can

3. Absorbent Material

Place absorbent material between the primary and secondary receptacle, making sure that multiple primary receptacles are individually wrapped to prevent contact. Use enough absorbent material to absorb the entire contents of all primary receptacles.



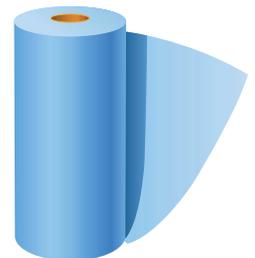
Cellulose Wadding



Cotton Balls



Super Absorbent Packet



Paper Towels

4. Sturdy Outer Packaging

Sturdy outer packaging must consist of corrugated fiberboard, wood, metal or rigid plastic and be appropriately sized for content.

For liquids, the outer packaging must not contain more than 4 L.

For solids, the outer packaging must not contain more than 4 Kg.

The minimum package size that FedEx will accept is 7" x 4" x 2". For packages below this size, FedEx offers clear plastic Clinical Paks as overwraps. As long as the package meets the four basic packaging requirements, you may insert your package into the Clinical Pak, bringing it up to the minimum acceptable size. (See "FedEx® Clinical Paks," at right.)

For Diagnostic Specimens, the minimum package size in the smallest overall external dimension is 4".

Each completed package must be capable of withstanding a 4' (1.2 meter) drop test outlined in IATA 6.6.1.



Corrugated Fiberboard



Wood



Rigid Cooler



Rigid Plastic Container

MARKINGS: Each diagnostic shipment must show the text, "DIAGNOSTIC SPECIMENS."

Specific requirements:

Please consult your current IATA regulations handbook for specific requirements on the following:

- Diagnostic Specimens shipped refrigerated or frozen
- Diagnostic Specimens shipped in liquid nitrogen

UNACCEPTABLE OUTER PACKAGING

Styrofoam™ boxes, plastic bags and paper envelopes are UNACCEPTABLE outer packaging.



Styrofoam™ Boxes



Plastic Bags



Paper Envelopes

In addition, FedEx will not accept diagnostic specimen or environmental test samples packaged in the FedEx® Envelope, FedEx® Tube, FedEx® Pak or any FedEx® Box.



FedEx Packaging

FedEx® CLINICAL PAKS

FedEx provides clear plastic Clinical Paks for clinical samples, diagnostic specimens and environmental test samples with outer packaging sizes under 7" x 4" x 2". The FedEx® Small Clinical Pak (inventory # 150948) measures 14" x 9" and is suitable for shipping single and smaller sized test specimens. The FedEx® Large Clinical Pak (inventory # 135629) measures 19" x 14" and is more appropriate for multiple and larger specimen shipments. Any individual specimen packages placed in the FedEx Clinical Pak must meet the four basic packaging requirements (watertight primary receptacle, watertight secondary receptacle, absorbent material and sturdy outer packaging).

Shipments marked or labeled 6.2 (infectious materials) and/or containing dry ice cannot be shipped inside the FedEx Clinical Pak. For more information on shipping infectious substances, call 1.800.GoFedEx® 1.800.463.3339 and press "81" to reach the Dangerous Goods/Hazardous Materials Hotline.



FedEx® Large Clinical Pak
(Front View)



FedEx® Small Clinical Pak
(Back View)

Clinical Specimens that are Dried and Non-infectious:

Dried samples such as dried blood, tissue, saliva, hair.

While non-infectious samples of dried blood are not dangerous goods and do not require a dangerous goods airbill, they do require special packaging that meets FedEx® Express guidelines. Dried blood samples on absorbent pads or cards for diagnostic testing must be enclosed in water-tight plastic bags and shipped in a sturdy outer container or commercial envelope. Samples on glass or plastic slides must be adequately cushioned and shipped inside a sturdy outer container. Flexible envelope packaging is not acceptable as an outer container.

Environmental Test Samples

Packaging of environmental test samples such as soil and water must meet the four basic packaging requirements for blood, urine and other clinical samples. Adequate internal filler or cushioning must be provided to protect contents. Temperature-control requirements of environmental test samples are the shipper's responsibility. For information on temperature-control methods, call 1.800.GoFedEx® 1.800.463.3339 and ask for a copy of the FedEx "Pointers on Packaging Perishable Shipments" brochure.

FedEx Package Testing and Design Services

FedEx offers package testing, evaluation and design services, that may help you avoid damage problems and eliminate unnecessary packaging costs. The FedEx Packaging Design and Development Department encourages all shippers of diagnostic specimens or environmental test samples to send packaging samples for evaluation. To obtain a Package Services Application form, visit www.fedex.com or call 1.800.633.7019.

Resources Available to Customers from FedEx

1. FedEx Packaging Design and Development Department: Call 1.800.633.7019 for non-infectious shipment inquiries
2. "Pointers on Packaging, Taping and Labeling for FedEx® Delivery Services" brochure
3. "Pointers on Packaging Perishable Shipments" brochure
4. List of Perishable Packaging Suppliers

For information regarding infectious shipments or Dangerous Goods, call 1.800.GoFedEx® 1.800.463.3339 and press "81" to reach the Dangerous Goods/Hazardous Materials Hotline.

Don't Forget...

- Infectious substances or probable infectious substances require additional specifications and must be shipped according to applicable government and IATA requirements.
- Shipments marked or labeled 6.2 (infectious materials) and/or containing dry ice cannot be shipped inside the FedEx® Clinical Pak.
- Consult the Occupational Safety and Health Administration (OSHA) regulations to determine if your commodity requires the Biohazard Label.
- FedEx will not accept clinical samples, diagnostic specimens or environmental test samples packaged in the FedEx® Envelope, FedEx® Tube, FedEx® Pak or any FedEx® Box.
- Don't use FedEx drop boxes to ship clinical samples, diagnostic specimens or environmental test samples. Please call FedEx for pickup, or you can drop off the shipment at a manned FedEx World Service Center® or FedEx Authorized ShipCenter®. Call 1.800.GoFedEx® 1.800.463.3339 for assistance.



Special Safety Tips

- Identify a specific package pickup location away from areas of potential exposure.
- Keep packages on a counter or table away from areas of potential exposure.
- Mark and weigh packages correctly.
- Have packages ready when you call for pickup.



NOTICE

FedEx® will refuse to accept packages not meeting FedEx, Government or IATA requirements.

This brochure is in no way intended to replace requirements mandated by 49CFR and IATA. This is for information purposes only.

This packaging brochure is provided free to FedEx customers to reduce the possibility of loss or damage during transit. It is NOT intended to be a comprehensive guide for packaging items we accept for transit. We make no warranties, expressed or implied, regarding this information. Proper packaging is the sole responsibility of the shipper. For more information and comprehensive guidelines, contact the FedEx Packaging Design and Development Department at 1.800.633.7019. Refer to the current FedEx® Service Guide for terms, conditions and limitations applicable to FedEx® delivery services.