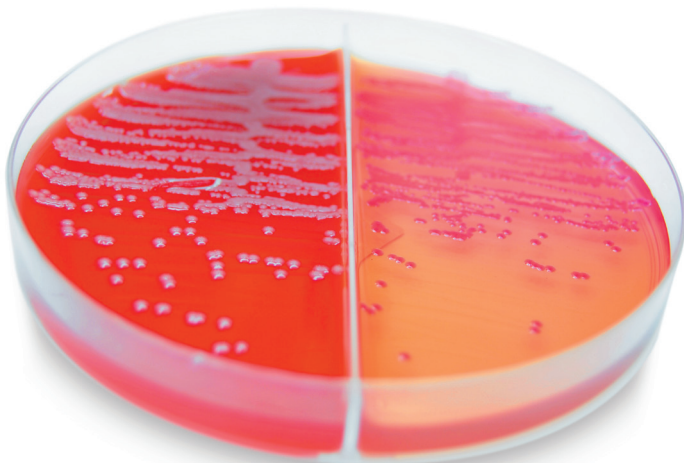




Packaging Guidelines for UN 3373 Shipments

Follow these instructions for packaging, marking and labeling Biological Substance, Category B (UN 3373) shipments for FedEx Express® services.



Requirements for Biological Substance, Category B (UN 3373) Shipments

This guide outlines the requirements for shipping with FedEx Express. 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, International Air Transport Association (IATA) and International Civil Aviation Organization (ICAO) regulations.

Customers who ship Biological Substance, Category B (UN 3373) shipments must comply with local, state and federal laws governing identification, classification, packaging and package markings (which may be in label form). FedEx Express strictly adheres to the IATA, ICAO and U.S. government guidelines for materials categorized as Biological Substance, Category B (UN 3373).

General Packaging Requirements

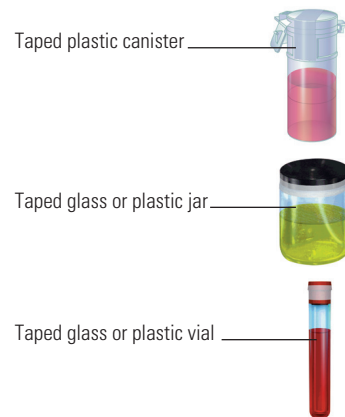
For Biological Substance, Category B (UN 3373) shipments, cushioning material is required for both liquid and dried specimens. You must also include four layers of packaging:

- 1. Primary watertight inner receptacle.** Use primary receptacles made of glass, metal or plastic with a positive means of ensuring a leakproof seal; skirted stopper or metal crimp seal must be provided; screw caps must be reinforced with adhesive tape. For liquid specimens, the primary receptacle must not contain more than 1 L. For dried specimens, the primary receptacle must not exceed the outer packaging weight limit.
- 2. Absorbent material.** Place absorbent material between the primary and secondary receptacles, using enough material to absorb the entire contents of all primary receptacles. Absorbent material is required for Biological Substance, Category B (UN 3373) shipments containing liquids. Acceptable absorbent materials include cellulose wadding, cotton balls, super-absorbent packets and paper towels.
- 3. Secondary watertight inner receptacle.** Use a secondary container that is leakproof for liquid specimens or siftproof for dried specimens. Choose only secondary containers certified by the manufacturer for Biological Substance, Category B (UN 3373) prior to use. Either your primary or secondary receptacle must be able

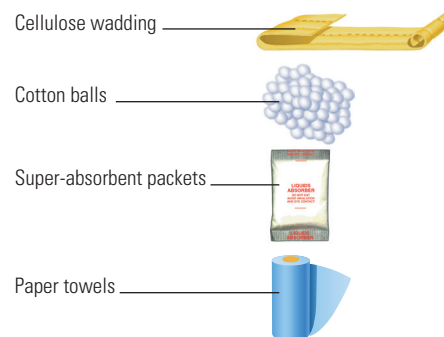
to withstand, without leakage, an internal pressure differential of not less than 95 kPa in the range of -40 C to 55 C (-40 F to 130 F). To prevent contact between multiple fragile primary receptacles, individually wrap or separate them inside the secondary container.

- 4. Sturdy outer packaging.** Use rigid outer packaging constructed of corrugated fiberboard, wood, metal or plastic, appropriately sized for the contents. Chipboard or paperboard boxes are unacceptable outer packaging. Limit the total volume for liquid samples to 4 L and the total weight of dried samples to 4 kg per outer container. The minimum outer container size in the smallest overall external dimension is 4". Completed packages must be able to withstand a 4' (1.2-m) impact test as outlined in IATA 6.6.1 regulations. Before sealing the outer packaging, you must make an itemized list of the contents of the package and enclose the list between the secondary packaging and outer packaging.

Acceptable Primary Receptacles



Acceptable Absorbent Materials



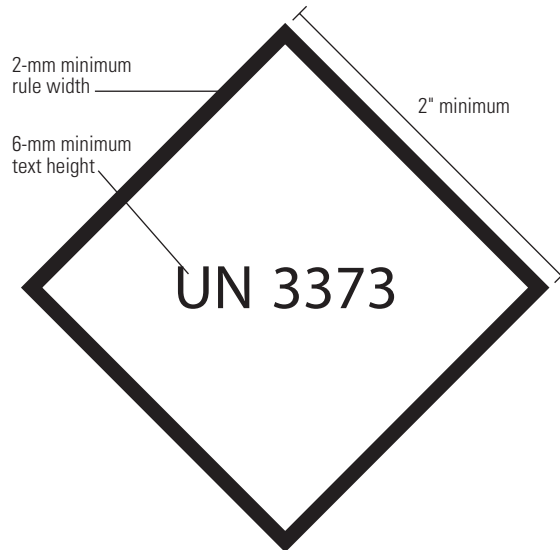
Acceptable Secondary Receptacles



Biological Substance, Category B (UN 3373) Marking Requirements

- Clearly mark "Biological Substance, Category B" in 6-mm-high text on the outer package adjacent to a properly sized UN 3373 diamond-shaped marking. If you prefer, package markings may be in the form of a label.
- If you use the FedEx® UN 3373 Pak, duplicate all required dangerous goods markings on each package inside the overpak.
- The name and telephone number of a person responsible must be marked on the package or provided on the airbill.
- The name and address of the shipper and recipient must be marked on the package.

Biological Substance, Category B (UN 3373) Marking Requirements



"Biological Substance, Category B" must appear in 6-mm-high text on the outer package adjacent to a diamond-shaped mark like the one shown here. The UN 3373 marking must be in the form of a square set at an angle of 45 degrees. Each side of the UN 3373 diamond should measure a minimum of 2" (50 mm). The width of the diamond rule line must be a minimum of 2 mm, and the letters and numbers must be at least 6 mm high.

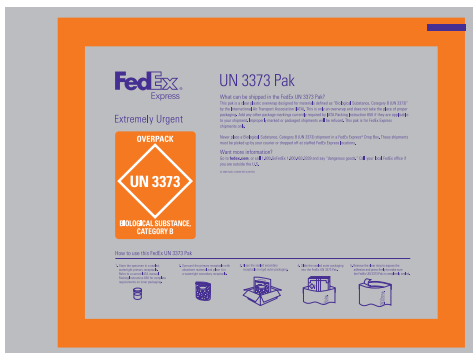
FedEx UN 3373 Pak

For your convenience, we offer the FedEx UN 3373 Pak as an overwrap for your Biological Substance, Category B (UN 3373) shipments. We recommend the FedEx UN 3373 Pak for use when the sturdy outer packaging of your properly packaged shipment is smaller than 7" x 4" x 2" (minimum acceptable size).

To help increase your operational efficiencies and clearly identify this type of shipment, the FedEx UN 3373 Pak is preprinted with the required IATA UN 3373 marking, the proper shipping name and the OVERPACK marking.

The FedEx UN 3373 Pak can only be used to ship Biological Substance, Category B (UN 3373) shipments. If you need an overwrap for exempt clinical and environmental test sample shipments, use the FedEx® Clinical Pak.

To order the FedEx UN 3373 Pak, call 1.800.GoFedEx 1.800.463.3339.



Packaging Restrictions

- Foam boxes, plastic bags and paper envelopes are unacceptable outer containers.
- The FedEx® Envelope, FedEx® Tube, FedEx® Pak, FedEx® Padded Pak and FedEx boxes, including FedEx brown packaging offered at FedEx shipping locations, are not acceptable as outer containers for Biological Substance, Category B (UN 3373) shipments.
- The FedEx Clinical Pak cannot be used to ship Biological Substance, Category B (UN 3373) shipments.
- Only shipments classified as Biological Substance, Category B (UN 3373) can be shipped in the FedEx UN 3373 Pak.
- Biological Substance, Category B (UN 3373) shipments that are shipped refrigerated, frozen, on dry ice, or in liquid nitrogen must comply with current IATA and ICAO regulations.

If you have questions about whether your shipments require a biohazard label, consult the Occupational Safety and Health Administration (OSHA) for the applicable regulations.

NOTICE: This packaging brochure is provided to FedEx customers to help reduce loss or damage due to improper packaging. 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 Dangerous Goods/Hazardous Materials Hotline at 1.800.GoFedEx 1.800.463.3339; press “81” or say “dangerous goods.” Refer to the current FedEx Service Guide for terms, conditions and limitations applicable to FedEx® delivery services.

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NOTE: Never place a Biological Substance, Category B (UN 3373) shipment in a FedEx Express® Drop Box. Call 1.800.GoFedEx 1.800.463.3339 to be directed to a FedEx location that can accept these shipments.

FedEx Office and FedEx World Service Center® locations do not accept shipments classified as Biological Substance, Category B (UN 3373). Call 1.800.GoFedEx 1.800.463.3339 to schedule a FedEx Express pickup, or to be directed to a FedEx location equipped to handle these shipments.

FedEx Packaging Services

FedEx Packaging Services offers package development consultation services. The FedEx Packaging Services lab does not test packaging containing Biological Substance, Category B (UN 3373) materials.

Contacts and Resources

- *How to Pack* guidelines at fedex.com/packaging.
- FedEx Dangerous Goods/Hazardous Materials Hotline, 1.800.GoFedEx 1.800.463.3339; press “81” or say “dangerous goods.”

NOTICE:

FedEx Express will refuse to accept packages that do not meet FedEx Express, government, or IATA and ICAO requirements. This brochure is in no way intended to replace requirements mandated by 49CFR and IATA. This is for informational purposes only.