

Shipping a Biological Substance, Category B using IATA packing instruction 650²

Step 1: Classification

If your material is infectious, but doesn't meet the criteria for inclusion in Category A, then you can use packing instruction 650 to transport your material by air per the ICAO & IATA regulations. You cannot use this packing instruction if your material does not meet the definition of a Biological Substance, Category B. If you are not sure if your material meets those criteria then contact this office for assistance or ship it using packing instruction 602 as a Category A infectious substance.

Shown below is what is listed in section 4 of the IATA manual under this shipping description.

UN/ ID no.	Proper shipping Name Description	Class or Div. (Sub Risk)	Hazard Labels(s)	PG	EQ see 2.7	Passenger and Cargo Aircraft				Cargo Aircraft Only	
						Ltd Qty		Pkg Inst.	Max Net Qty/Pkg	Pkg Inst.	Max Net Qty/Pkg
						Pkg Inst.	Max Net Qty/Pkg				
3373	Biological substance, Category B	6.2			E0	-	-	See 650		See 650	

“See 650” means that you should consult Packing Instruction 650 for the quantity Limits. While it shows that no label is required, remember that the “UN3373” in a diamond is considered a marking, NOT a label, and that marking is required.

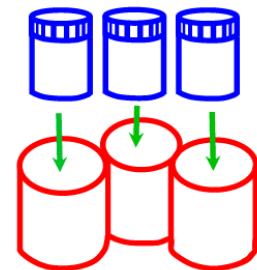
Step 2: Packaging



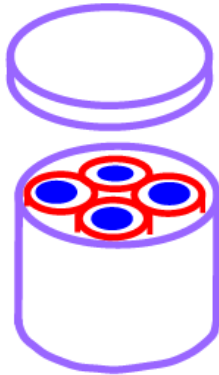
Place your specimen in a leak proof primary receptacle. No larger than 1 liter if a liquid or 4 kg if a solid.

If you use multiple primary packaging, they must be packed in such a way that under normal conditions of transport they cannot break, be punctured, or leak their contents into the secondary package (i.e., cushioning and absorbent material is required). The absorbing material must be sufficient to absorb the entire contents of all primary receptacles.

(If shipped by air, the primary or secondary container must be able to withstand, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar, 14 psi).



² This information is intended to promote safe shipping and handling by the University of Washington and those entities that conduct business with the University of Washington. It is not intended to meet any training requirements or to constitute a determination of compliance with the law. Any non-University of Washington entity must make an independent determination of compliance with the law.



Your Secondary package must also be leak proof, and no larger than 4 liters or 4 kilograms.

Remember, if your package is going by aircraft, you need to have your primary or secondary package be able to withstand an internal pressure producing a pressure differential of not less than 95Kpa (0.95bar, 14 psi).

You must include an itemized list of contents between the secondary packaging and the outer packaging.

You need to place your secondary packaging in a rigid outer packaging. At least one side of the outer packaging must have a minimum dimension of 100mm x 100mm (4 inches by 4 inches).

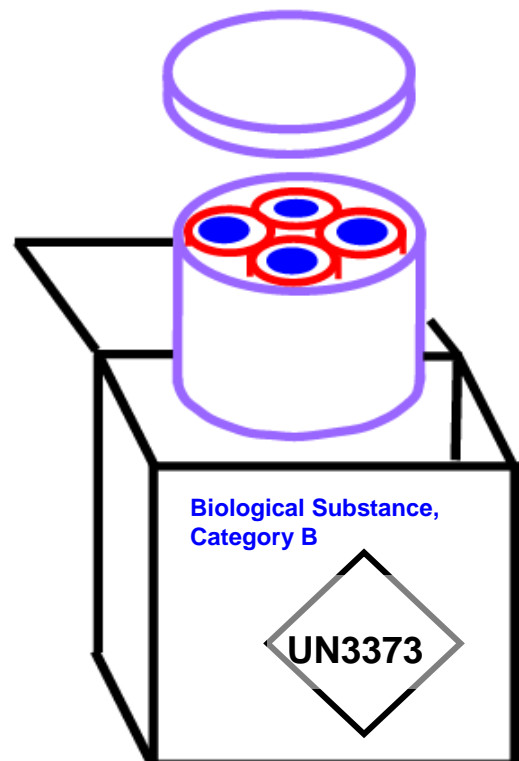
Specific requirements for substances shipped refrigerated or frozen (wet ice, pre-frozen packs, Carbon dioxide, solid [dry ice]):

- Ice, Carbon dioxide, solid (dry ice) or other refrigerant must be placed outside the secondary packaging(s) or alternatively, in an overpack with one or more completed packagings.
- Interior support must be provided to secure the secondary packaging(s) in the original position after the ice or Carbon dioxide, solid (dry ice) has been dissipated.
- If ice is used the packaging must be leak-proof.
- If Carbon dioxide, solid (dry ice) is used the outer packaging must permit the release of carbon-dioxide gas.
- The primary receptacle must maintain its containment integrity at the temperature of the refrigerant as well as at the temperatures and pressure of air transport to which the receptacle could be subjected if refrigeration were to be lost.

Your Outer package needs to be rigid and capable of passing a 1.2-meter (3.9 feet) drop test. There is also a rain test that needs to be performed when following the IATA regulations. So while you do not need a “un” rated package, the general packaging requirements still apply as well as these two addition tests so we suggest your purchase packaging specifically designed for the shipment of Diagnostic and clinical specimens as opposed to constructing your own.

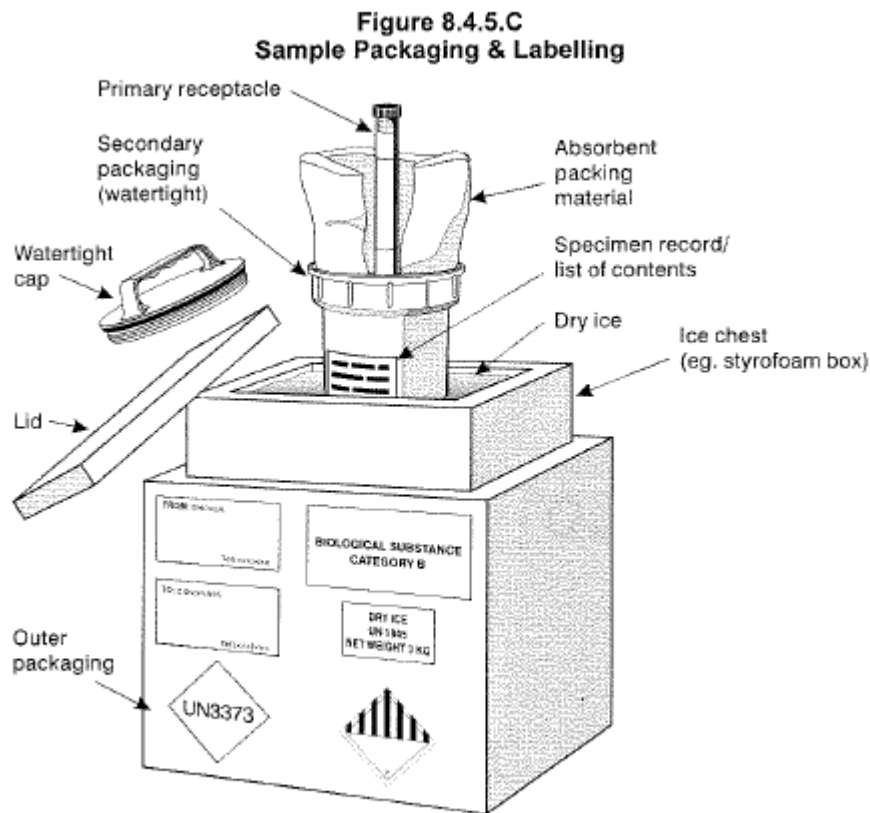
Step 3: Marking and labeling

The outer package must be clearly and durably marked with the words “Biological Substance, Category B.” It also needs to be marked with a diamond with sides of at least 50 mm (2 inches) and a line thickness of at



least 2 mm. Inside that diamond must be marked “UN 3373” in letters at least 6 mm high. You can purchase these markings from a vendor (labelmaster.com) or you can create them yourself as long as they meet the size requirements listed above and they are durable and legible.

You also need to have a “to” and a “from” listed on the package. If not shown on the airway bill you are also required to have the name and phone number of a responsible person marked on the package. If you are shipping this on dry ice, you will need to mark and label the box with the proper shipping name and hazard class label for dry ice. You will also need to mark the box with the total weight of dry ice used. (For an example, see “Shipping dry ice refrigerating a non-dangerous commodity.”)



Step 4: Documentation

Complete the airway bill. The name, address and telephone number of a responsible person must be provided on the air waybill (or on the package.)

In the “Nature and Quantity of Goods” box of the air waybill you must show the text “DIAGNOSTIC SPECIMEN” or “Clinical Specimen” or “Biological Substance, Category B” and “UN3373” If your package contains dry ice, you would also need to write “Dry Ice 9 UN1845” and the number of packages and the net quantity of dry ice per package.

If you shipment contained dry ice you would need to mark that on the air waybill also.

**Figure 8.4.4.B
Air Waybill**

Airport of Destination		Requested Flight/Date		Amount of Insurance		INSURANCE - If carrier offers insurance, and such insurance is requested in accordance with the conditions thereof, indicate amount to be insured in figures in box marked "Amount of Insurance".	
Handling Information Responsible person: Dr. I. M Able, 1 rue St-Antoine, Montreal Tel.: +1 (514) 103-4567							
No. of Pieces RCP	Gross Weight	kg	Rate Class Commodity Item No.	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (incl. Dimensions or Volume)
							BIOLOGICAL SUBSTANCES CATEGORY B UN 3373 Dry Ice, Class 9 UN1845, 1 x 3 Kg

On a FedEx air waybill, it would look something like this:

6 Special Handling			Include FedEx address in Section 3.		
<input type="checkbox"/> SATURDAY Delivery Available ONLY for FedEx Priority Overnight and FedEx 2Day to select ZIP codes	<input type="checkbox"/> HOLD Weekday at FedEx Location NOT Available for FedEx First Overnight	<input type="checkbox"/> HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations			
Does this shipment contain dangerous goods? <i>One box must be checked.</i>			<i>Biological Substances, Category B, UN3373</i>		
<input type="checkbox"/> No	<input type="checkbox"/> Yes As per attached Shipper's Declaration	<input checked="" type="checkbox"/> Yes Shipper's Declaration not required	<input type="checkbox"/> Dry Ice Dry Ice, 9, UN 1845 _____ x _____ kg	<input type="checkbox"/> Cargo Aircraft Only	
Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.					

FedEx also has an on line system called "Ship Manager" which can be used to arrange your package for pickup- the document you print at the end is in lieu of an air waybill. Because the program doesn't give you all the options you need to ship a dangerous material it is not usable for most dangerous goods beyond dry ice.

A Shipper's Declaration for Dangerous Goods is not required.

Can my package contain other dangerous goods?

Other dangerous goods must not be packed in the same packaging as Division 6.2 Infectious Substances unless they are necessary for maintaining the viability, stabilizing or preventing degradation or neutralizing the hazards of the infectious substances. A quantity of 30 mL or less of dangerous goods included in Classes 3, 8 or 9 (i.e., Ethanol, Formaldehyde and Formalin) may be packed in each primary receptacle containing infectious substances. When these small quantities of dangerous goods are packed with infectious substances in accordance with this packing instruction, no other requirements in these Regulations need to be met.