



Laboratory Shipping Protocols

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1. PURPOSE

The purpose of this standard operating procedure (SOP) is to describe the procedures required to ship and receive specimens for the SSS Central Lab in Durham, NC.

2. SCOPE

This SOP applies to all SSS lab staff members who perform tasks related to the receiving and shipping of specimens in the SSS Central Lab in Durham, NC.

3. TRAINING REQUIREMENTS

Federal (DOT) and international regulations (IATA) require that those responsible for shipping dangerous goods must be appropriately trained. Training must be documented and is valid for two years for IATA and three years for DOT. Certificates of completion are stored in the training compliance binder in the lab hallway.

4. LABELING AND PACKING SPECIMENS

4.1 Labeling and Placing Specimens in Boxes

Follow this procedure when packing frozen samples. Always use Universal Precautions.

4.1.1 Specimen Labels

Each specimen must be labeled with at least the following information:

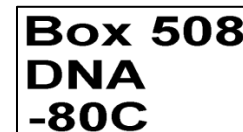
- BSI Id – Barcode + Human Readable
- Study Id – 3 Letter Study Code
- Subject Id
- Material Type



A sample label is shown on the right. Labels should be created using materials appropriate to the temperature at which the samples will be stored. Samples stored at -80°C should only be labeled with cryogenic labels that can withstand those temperatures. Follow the labeling direction in the Label Standardization SOP.

4.1.2 Packing tubes for storage and shipment

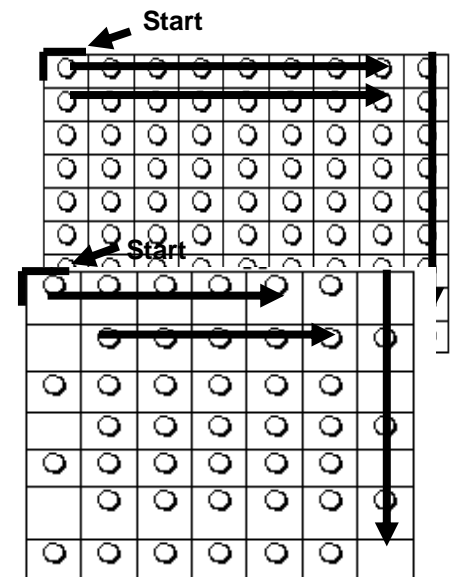
- Before placing tubes in a storage box properly mark the outside of the box with the following information:
 - Study Name
 - Box Number
 - Material Type
 - Storage Temperature
- Precool boxes at the appropriate temperature prior to placing samples in the box. Using a black Sharpie, mark the back left corner of the box (See diagram).
- Once a box has been filled, scan the box into a spreadsheet (see diagram) to record Box/Row/Column information for upload into BSI. Once the Box/Row/Column information has been entered and a requisition has been created, complete a sequential scan of the box prior to shipment.



4.2 Box Patterns

Full Box Tube Pattern -Fill all spaces in the box starting in the back left corner, going left to right and back to front (See Full Box Tube Pattern Diagram). Put the box back into the freezer after adding vials.

Staggered Box Pattern - Fill the spaces in the box as indicated in the Staggered Tube Box Pattern on the right. Samples are placed in a staggered manner starting in the back left corner, going left to right and back to front. Place the box into the freezer immediately after filling.



Staggered Tube Box Pattern

5. SPECIMEN FILES AND SHIPMENT

- The BSI Administrator will create a ship-out file.
- Double-check that the ship-out file matches the boxes being shipped. Resolve any discrepancies before shipping.
- Name the file according to the convention specified, e.g. Study_ date_initials.xls.
- Email the completed file to the recipient at the time of the shipment, and print a hard copy to accompany the shipment.

6. PACKING A SPECIMEN BOX PRIOR TO SHIPPING

To prepare a frozen sample for shipping follow these procedures.

- Allow frozen samples to freeze at least 12 hours prior to shipment.
- ***Ship specimens Monday-Wednesday; NEVER ship on Thursday or Friday.***
- Pack the specimen boxes as follows:

6.1 Place a rubber band around each box

6.2 Place the frozen specimen box in a biohazard labeled Ziploc bag that is IATA rated for shipping.

6.3 Place an absorbent pad inside the Ziploc bag that is rated to absorb the volume of liquid in the specimen box. (ex. If you have 91 1ml vials in a box, use an absorbent pad rated at 100ml.)

7. CLASSIFYING SHIPPING CATEGORIES FOR HUMAN SPECIMENS

This procedure describes how to distinguish specimens as Human Exempt Specimens, Class B Human Specimens, and Category A Human Specimens. For further clarification please refer to the IATA substances classification found in IATA training materials and the Steri-Safe OSHA program found in the laboratory. The lab supervisor will decide if a specimen must be shipped as a "Category B or Category A Biological Specimen".

7.1 Exempt Human Specimens (Routine Shipments)

The "Exempt Human Specimen" category relates to patient specimens for which there is minimal likelihood that pathogens are present and are not subject to the Dangerous Goods Regulations if the specimen is transported in Packaging for Exempt Human Specimen. In determining whether a patient specimen has a minimal likelihood that pathogens are present, an element of professional judgment is required. That judgment should be based on the known medical history, symptoms and individual circumstances of the source, human or animal, and endemic local conditions. Examples of specimens which may be transported as a patient specimen for which there is a minimal likelihood that pathogens are present include blood or urine tests to monitor cholesterol levels, blood glucose levels, hormone levels, or prostate specific antigens (PSA); tests required to monitor organ function such as heart, liver or kidney function for humans or animals with non-infectious diseases, or therapeutic drug monitoring; tests conducted for insurance or employment purposes and are intended to determine the presence of drugs or alcohol; pregnancy tests; biopsies to detect cancer; and antibody detection in humans or animals. DNA, saliva, toenails, and dust are always classified as Human Exempt Specimens.

7.2 Category B Biological Specimen UN3373

A Category B Biological Specimen UN3373 is an *infectious substance* which is transported in a form that, when exposure occurs, is *not* capable of causing permanent disability, life-

threatening or fatal diseases in otherwise healthy humans or animals. Assignment to this class must be based on the known medical history and symptoms of the source human or animal, endemic local conditions, or professional judgment concerning individual circumstances of the source human or animal.

7.3 Category A Biological Specimen

Category A Biological Specimens are infectious substances which are transported in a form that, when exposure occurs, is capable of causing permanent disability, life threatening or fatal diseases in otherwise healthy humans or animals. Assignment to this class must be based on the known medical history and symptoms of the source human or animal, endemic local conditions, or professional judgment concerning individual circumstances of the source human or animal.

8. EXEMPT HUMAN SPECIMENS - SHIPPING ON FROZEN GEL PACKS

This procedure describes how to ship "Exempt Human Specimens" on Frozen Gel Packs. Frozen gel packs are used to transport specimens that are frozen at -80°C or for refrigerated samples.

8.1 Equipment and Supplies

- Styrofoam secondary container
- 4G type fiberboard outer box
- Human Exempt Specimen label
- Frozen Gel Packs (Frozen at -20°C)
- The FedEx Airbill: www.FedEx.com.

8.2 Universal Safety Precautions

Handle all specimens as if capable of transmitting disease.

8.3 Procedure

8.3.1 Triple Packaging Specifications

- **Leak-proof primary** – NUNC vials, Sarstedt Tubes, etc.
- **Leak-proof secondary** (not subject to pressure test) – Ziploc Bags
- **Absorbent material** to contain all liquid in package
- Primary or secondary package must be marked with **Biohazard Label**
- **Outer packaging** of adequate strength for its capacity. Package must have one surface with minimum dimensions of at least 4" x 4".

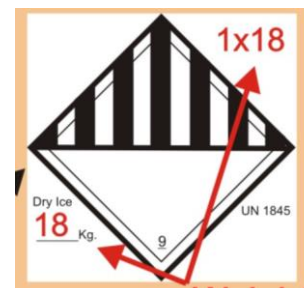
- 8.3.2 **Leak-Proof Primary** containers are tubes (NUNC vials, Sarstedt Tubes, etc.) holding the actual specimen and are normally stored in gridded holding boxes. Wrap each box with **absorbent material** (paper towels or absorbent bench paper), tape tightly to secure such that there is enough absorbent paper to absorb the liquid content of the package. Place each of these wrapped boxes into a **biohazard labeled** non-brittle **leak-proof secondary** plastic bag, such as a Ziploc bag, with as much of the air removed as possible.
- 8.3.3 Pack each specimen box as per instruction on page 5.
- 8.3.4 Label the shipper as per **Appendix B: Procedure for Shipping Specimens on Gel Packs**
- 8.3.5 Complete the FedEx Airbill either On-Line (**Appendix D** - complete steps 1-10) or using a printed Airbill (See **Appendix E** - Complete steps 1-9)

9. EXEMPT HUMAN SPECIMENS - SHIPPING SPECIMENS ON DRY ICE

This procedure describes how to ship "Exempt Human Specimens" on dry ice. Dry ice is considered dangerous goods by the Department of Transportation and IATA. The shipping box must therefore be labeled indicating that it contains dry ice alerting the shipper to its special handling instructions.

9.1 Equipment and Supplies

- Cryo protective gloves
- Styrofoam secondary container
- 4G type fiberboard outer box
- Dry Ice labels (Dangerous Goods, Category 9, UN1845, White with Black)
- Human Exempt Specimen label
- The FedEx Airbill: www.FedEx.com.



9.2 Universal Safety Precautions

Handle all specimens as if capable of transmitting disease. Dry Ice is -80°C . It can cause 3rd degree burns when it contacts exposed skin. Wear cryo protective gloves when handling.

9.3 Packing Procedure

9.3.1 Triple Packaging Specifications

- **Leak-proof primary** – NUNC vials, Sarstedt Tubes, etc. Leak-Proof Primaries are containers are tubes holding the actual specimen (NUNC vials, Sarstedt Tubes, etc.) and are normally stored in 5"X5" holding boxes at -80°C . Wrap each box with **absorbent material** (paper towels or absorbent bench paper), tape tightly to secure such that there is enough absorbent paper to absorb the liquid content of the package. Place each of these wrapped boxes into a **biohazard labeled** non-brittle
- **Leak-proof secondary** (not subject to pressure test) – are plastic zipper bags, such as a Ziploc bag, with as much of the air removed as possible.
- **Absorbent material** to contain all liquid in package

- **Outer packaging** of adequate strength for its capacity. Package must have one surface with minimum dimensions of at least 4" x 4"

9.3.2 Pack each specimen box as per instruction on page 5.

9.3.3 Label the shipment as per **Appendix C: Procedure for Shipping Specimens on Dry Ice.**

9.3.4 Complete the FedEx Airbill either On-Line or using a printed Airbill

10. SHIPPING SPECIMENS PRESERVED IN ALCOHOL (NO DRY ICE)

This procedure describes how to ship non-hazardous specimens containing alcohol or other flammable liquid. Handle all specimens as if capable of transmitting disease. Wear gloves and eye protection.

10.1 Requirements

The Department of Motor Vehicles and IATA considers alcohol Dangerous Goods. The shipping box must therefore be labeled that it contains a flammable liquid alerting the shipper to its special handling instructions.

If the sample being shipped contains less than 2 L of alcohol and the individual containers do not exceed 30ml each, then the samples can be shipped by normal FedEx delivery. If the samples exceed these limits then it is considered dangerous goods and the Shippers Declaration of Dangerous Goods must be completed.

The Shippers Declaration of Dangerous Goods form must be printed out on a color printer. The shipper must sign all corrections to the Airbill with his or her full name. Sender's name and address, receiver's name and address and the information in the Dangerous Goods Identification of the Airbill must appear on one side of the 4G cardboard shipping box. See **Appendix A: Instructions for Completing the Shippers Declaration Form** for instruction on how to fill out the Dangerous Goods Form.

If the package contains dry ice, the Airbill and package labels must also reflect this.

10.2 Equipment and Supplies

- Eye protection
- Styrofoam secondary container
- 4G type fiberboard box
- Shippers Declaration of Dangerous Goods (full page size domestic use) 3 copies
- Appropriate labels as specified in this document

10.3 Packing Procedure

10.3.1 Primary containers are tubes holding the actual specimen in alcohol and are normally stored at room temperature. Pack each specimen box as per instruction on page 5. Place into the shipping box. The primary container or the secondary packaging must be capable of withstanding, without leakage, an internal pressure of 95 kPa in the range of -40°C to 55°C.

10.3.2 Pack the space between each plastic bag and the cardboard box with supplementary cushioning material such as cardboard, foam or bubble wrap.

10.3.3 If you are shipping the alcohol specimens on wet ice follow the directions in **Appendix B**.

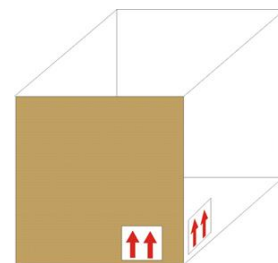
10.3.4 If you are shipping the alcohol specimens on dry ice follow the directions in **Appendix C**.

10.3.5 Tape any correspondence for the Consignee or Excel spreadsheet used as a packing list to the top of the specimens or Styrofoam container. If used, place the Styrofoam container into the 4G fiberboard box. Securely tape the top of the large fiberboard outer box shut as in **Diagram 1 in Appendix B or C**.

10.3.6 Complete the FedEx Shippers Declaration Form as per **Appendix A**.

10.3.7 Label the top and sides of the large fiberboard outer box with the six labels as depicted in diagrams below. Make sure that no labels overlap.

- UN3373 Label for Dangerous Goods or the Human Exempt Specimen label
- UN Label for Alcohol type being shipped
- To/From Label
- FedEx Airbill and two copies of the Shippers Declaration Form in an airbill pouch
- #3 red diamond shaped Flammable Label
- Up Arrow Labels on two sides of the box
- If dry ice is part of the shipment, affix the #9 black and white Dry Ice Label directly under the Flammable Liquid label. Write in the weight of the dry ice in the space provided on the label. (Not shown in Diagram)



- Weigh the filled large fiberboard outer box to determine its final shipping weight in lbs. Complete the FedEx Airbill either On-Line (**Appendix D**) or using a printed Airbill (**Appendix E or F**) and make sure you place a shippers declaration inside the box.

11. INTERNATIONAL SHIPPING OF SPECIMENS AND GOODS VIA FEDEX

This procedure describes how to ship non-hazardous specimens/goods outside the United States. This procedure only applies to shipments that do not contain dangerous goods.

Complete the FedEx International Air waybill on-line at www.fedex.com. Ensure that Sender's name and address, and Recipient's name and address Identification (if applicable) appear on two sides of the Cardboard shipping container.

11.1 Equipment and Supplies

- Styrofoam secondary container as applicable.
- 4G fiberboard box
- FedEx international Air waybill completed on-line
- FedEx Commercial invoice form (required for Customs officials) completed on line

11.2 Safety Precautions

Universal Safety Precautions. Handle all specimens as if capable of transmitting disease. Dry ice is -80°C. It can cause 3rd degree burns when it contacts exposed skin. Wear cryo protective gloves when handling.

11.3 Packing Procedure

- 11.3.1 Pack and label the shipping containers as per the appropriate specimen type in this document. (ex. Exempt Human Specimens – Shipping on Dry Ice) Pack the container the same as you would for a domestic shipment. If you are shipping with dry ice, use an insulated shipping container that is three inches thick and is completely packed with dry ice. Put enough dry ice to last at least two days. Block dry ice, if available, will last longer than pelleted dry ice.
- 11.3.2 Place a complete inventory of the contents, a 3 copies of a signed and dated commercial invoice – 2 copies included with the waybill and 1 copy inside the 4G box before taping (a sample commercial invoice can be found on www.FedEx.com / Business Solutions / Go to FedEx Global Trade Manager/ Commercial Invoice), and any other required correspondence on top of the insulated container inside the 4G box before taping.
- 11.3.3 Secure container with sufficient cellophane tape.
- 11.3.4 Weigh the fiberboard box to determine its final shipping weight.
- 11.3.5 For International Shipments: Use World Courier, 1-800-231-7227 or FedEx. World Courier specializes in international regulations that vary by country of destination.
- 11.3.6 For FedEx shipments go to www.fedex.com and click on International Tools. Click on "Prepare an International Shipment". Fill in the required information then call 877-339-2774 for help on filling out the rest of the paperwork. You will need the following information to complete the international waybill:
 - Date and Sender's information
 - Recipient's information
 - Commodity description (ex. Calipers), value for Customs (Declared value must be at least \$1) and total value for Customs in U.S. dollars (ex. 252.00 U.S. dollars)

- For express package service, check FedEx Intl. Priority box
- Check box stating absence of dangerous goods.
- For payment, check Sender
- For payment of duties (varies by country), check Sender

11.3.7 You will need the following information for the FedEx Customs Invoice:

- Shipper: Sender's name
- Consignee: Recipient's name
- Full description of Goods: ex. "Calipers"
- Total number of packages: enter appropriate number
- Total weight: enter pre-determined weight
- Date: today's date

11.3.8 Print To / From address labels containing the sender and consignee address information exactly as they appear on the Airbill. Affix To / From address label to upper left corner of the 4G box.

11.3.9 Affix the "UP" arrows labels on the two opposite sides of the box from all other labels.

11.4 Shipping to Canada – See Appendix P – SHIPPING INFECTIOUS SUBSTANCES TO CANADA

Appendix A: Instructions for Completing the Shipper's Declaration Form

SHIPPER'S DECLARATION FOR DANGEROUS GOODS							
Shipper A				Air Waybill No. Page of Pages Shipper's Reference Number (optional)			
Consignee B							
Two completed and signed copies of this Declaration must be handed to the operator.				WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.			
TRANSPORT DETAILS							
This shipment is within the limitations prescribed for: (delete non-applicable)		Airport of Departure					
<div style="border: 1px solid black; padding: 2px; display: inline-block;">PASSENGER AND CARGO AIRCRAFT</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 10px;">CARGO AIRCRAFT ONLY</div> C							
Airport of Destination			D Shipment Type (delete non-applicable) <div style="border: 1px solid black; padding: 2px; display: inline-block;">NON-RADIOACTIVE</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 10px;">RADIOACTIVE</div>				
NATURE AND QUANTITY OF DANGEROUS GOODS							
Dangerous Goods Identification					Quantity and Type of Packing	Packing Instructions	Authorization
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group				
E	F	G	H	I	J	K	
Additional Handling Information L							
Emergency Telephone Number							
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to the applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.				Name/Title of Signatory Place and Date Signature (see warning above)			
M							

Created by Andy Glode at the University of New Hampshire Office of Environmental Health and Safety

11.5 Step #1:

You can complete the Shippers Declaration Form using a PDF from FedEx or on-line at www.FedEx.com:

On-Line -

<http://www.fedex.com/us/services/options/express/dangerousgoods/declarationforms.html>.

Remember - the FedEx PDF or on-line form can't be saved electronically. You must print it out when you have completed filling it out.

11.6 Step #2:

Begin by placing the cursor in the "Shipper" block in the upper left corner of the Shipper's Declaration (A) and keying information as appropriate. Using the **TAB** key to move from one field to another, complete all required fields. For a detailed explanation of information required on a Shipper's Declaration, refer to **IATA Section 8 - Documentation (Paragraph 8.1.6)**. Using the sequence the **TAB** key will follow, a general explanation of how to complete the form is provided below:

- **(A) Shipper** - Full name and address of the shipper (The name and address must be *exactly* the same as that which appears on the To/From label on the outside of the box)
- **Air Waybill Number** - The number of the Air Waybill to which the declaration form will be attached
- **Page of Pages** - The page number and the total number of pages (For a single page Shipper's Declaration, enter "**Page 1 of 1 Pages**").
- **Shipper's Reference Number** - Optional field providing the shipper with an opportunity to enter an internal organization reference number (Insert a Study Code here)
- **(B) Consignee** - Full name and address of the consignee (The person receiving the shipment, not the PI)
- **(C) Transport Details** - Tab to the appropriate field, and using the capital letter "X," enter X's to block out "Passenger and Cargo Aircraft" (*for shipments which must travel on Cargo Aircraft Only*) or to block out "Cargo Aircraft Only" (*for shipments which may travel on either Passenger or Cargo aircraft*).
- **Airport of Departure** - Enter the full name of the airport or city of departure. (For a package being shipped out of Chicago using O'Hare Airport, this field may be completed as: "O'Hare," "O'Hare Airport," "O'Hare International Airport," "Chicago," "Chicago, IL," etc.).
- **Airport of Destination** - Enter the full name of the airport or city of destination. (For a package being shipped to Chicago using O'Hare Airport, this field may be completed as: "O'Hare," "O'Hare Airport," "O'Hare International Airport," "Chicago," "Chicago, IL," etc.).
- **(D) Shipment Type** - Tab to the appropriate field, and using the capital letter "X," enter X's to block out "NON-RADIOACTIVE" (for shipments which contain radioactive material) or to block out "RADIOACTIVE" (for shipments which do not contain radioactive material).
- **Nature and Quantity of Dangerous Goods** - Enter the required information strictly in accordance with IATA 8.1.6.9. Begin by entering the UN or ID Number(E) . Use the **SPACE BAR** to move from one column to another as you enter information across the page. Per IATA 8.1.6.10 (b), the information in this field "**must** be entered in sequence within the columns provided." If your information will not fit without going over the lines separating the columns, use the **ENTER** key and enter text on another line. See Appendix L for details.

- **When shipping Biological Substances, Category B**

- (E) UN or ID No. = UN 3373
- (F) Proper Ship Name = Biological Substances, Category B
- (G) Class or Division = 6.2
- (H) Packing Group = II
- (I) Qty/Type of Pkg. = Just give total (Ex. 3 fiberboard boxes at 1.0 liter per pkg.)
- (J) Packing Inst. = Y305
- (K) Authorization = Limited Qty.

- **When shipping alcohol (<5L)**

- (E) UN or ID No. = UN 1987
- (F) Proper Ship Name = Alcohols, n.o.s. Limited Quantity.
- (G) Class or Division = 3
- (M) Packing Group = II
- (I) Qty/Type of Pkg. = Just give total (Ex. 3 fiberboard boxes at 1.0 liter per pkg.)
- (J) Packing Inst. = Y305
- (K) Authorization = Limited Qty.

- **Isopropyl Alcohol information (<5L)**

- Proper Ship Name = Isopropyl alcohol
- Class or Division = 3
- UN or ID No. = UN 1219
- Packing Group = II
- Qty/Type of Pkg. = Just give total (Ex. 3 fiberboard boxes at 1.0 liter per pkg.)
- Packing Inst. = Y305
- Authorization = Limited Qty.

- **Ethyl Alcohol information (<5L)**

- Proper Ship Name = Ethyl alcohol
- Class or Division = 3
- UN or ID No. = UN 1170
- Packing Group = II
- Qty/Type of Pkg. = Just give total (Ex. 3 fiberboard boxes at 1.0 liter per pkg.)
- Packing Inst. = Y305
- Authorization = Limited Qty.

- **(L) Additional Handling Information** - Enter any special handling information relevant to the shipment in accordance with IATA 8.1.6.11.

- **(L) Emergency Telephone Number** - All dangerous goods shipments to, from, within, or transiting through the U.S. must include 24-hour emergency response information as described in IATA 2.9.2, USG-12.

- **(M) Name and Title of Signatory** - Enter the name and title of the person actually signing the Shipper's Declaration.
- **(M) Place and Date** - Enter the place and date to indicate where and when the form is actually signed.
- **(M) Print and sign the form.** Per IATA 8.1.4.1, a typewritten signature is not acceptable.

11.7 Step #3:

Provide at least three (3) signed copies of the completed Shipper's Declaration (with diagonal hatchings printed in red on color printer) to FedEx Express for shipping. (Refer to FedEx Express IATA Variation FX-14).

12. APPENDIX B: PROCEDURE FOR SHIPPING SPECIMENS ON GEL PACKS

12.1 Equipment & Supplies

- 4G type fiberboard outer box
- Styrofoam secondary container
- Frozen Gel Packs (Must be frozen for at least 24 hours at -20C prior to shipping)

12.2 Procedure

12.2.1 Place the large Styrofoam liner in the large fiberboard outer box. Cover the bottom of the Styrofoam liner with a layer of frozen gel packs (See Photo).



Photo 4 - Specimen box surrounded by cold packs

- Place the specimen box in the center of the Styrofoam liner and pack additional frozen gel packs around the side and top of the box (~ 40-50 cold packs). You do not need to completely fill the container, however the more you use the better. Leave room for the Styrofoam lid to fit flat.
- If shipping multiple specimen boxes in the shipper, place them side by side in the Styrofoam liner and pack additional frozen gel packs around the side and top of the box (~ 30 cold packs).
- Use a sufficient number of gel packs to maintain 4°C during transit.
- Replace the top of the Styrofoam container and place any correspondence on top of the Styrofoam container.

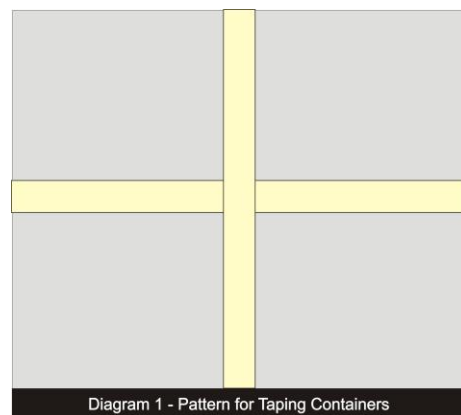


Diagram 1 - Pattern for Taping Containers

12.2.2 Securely tape the top of the large fiberboard outer box shut as in Diagram 1.

12.2.3 Label the top of the large fiberboard outer box with the three labels as depicted in Diagram 2 on next page (Exempt Human Specimens) or Diagram 3 on next page (Class A or B Dangerous Goods).

12.2.4 Weigh the filled large fiberboard outer box to determine its final shipping weight in lbs. Complete the FedEx Airbill either On-Line (**Appendix D**) or using a printed Airbill (**Appendix E**)

12.2.5 Notify FedEx at 1-800-463-3339 or at www.fedex.com for a package pick-up or take the package to the nearest FedEx facility. E-mail the tracking number to the recipient.

13. APPENDIX C: PROCEDURE FOR SHIPPING SPECIMENS ON DRY ICE

13.1 Equipment & Supplies

- 4G type fiberboard outer box
- Styrofoam secondary container
- Dry Ice

13.2 Calculate the combined weight of the 4G Shipper, the Styrofoam inner container and the specimens being shipped. (There should be no dry ice in the container at this point). This will be your "Tare Weight".

13.3 Remove the Styrofoam container from the outer 4G cardboard box. Cover the bottom of the Styrofoam liner with a layer of dry ice. (See photo)



- Place the specimen box in the center of the Styrofoam liner and pack additional dry ice around the side and top of the specimen box (~ 25-30 lbs). You do not need to completely fill the container, however the more you use the better. Leave room for the Styrofoam lid to fit flat.
- If shipping multiple specimen boxes in the shipper, place them side by side in the Styrofoam liner and pack additional dry ice around the side and top of the box.
- Use a sufficient amount of dry ice to maintain temperature during transit. Tape the top of the Styrofoam container as in Diagram 1. **DO NOT tape the sides** of the lid as this may cause a buildup of pressure which can result in an explosion of the package.
- Place the sealed Styrofoam box back into the outer fiberboard box.

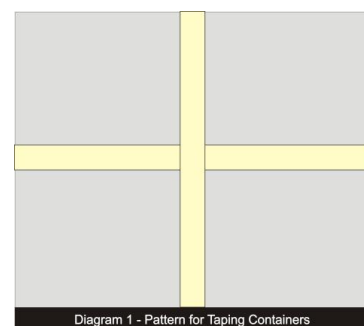


Diagram 1 - Pattern for Taping Containers

13.4 Securely tape the top of the large fiberboard outer box shut as in Diagram 1.

13.5 Label the top of the large fiberboard outer box with the three labels as depicted in Diagram 2 (Exempt Human Specimens) or Diagram 3 (Biological Substances, Class B).

13.6 Weigh the filled large fiberboard outer box to determine its final shipping weight in lbs. Subtract the tare weight to determine the weight of the dry ice in the package. Convert the weight in lbs to kilograms.

$$\frac{\text{Total Shipping Weight (lbs.)} - \text{Tare Weight (lbs.)}}{2.2} = \text{Weight of Dry Ice (Kg)}$$

13.7 Enter the weight of the dry ice in Kg on the Dry Ice Label

13.8 Complete the FedEx Airbill either On-Line (Appendix D) or manually (Appendix E)

13.9 Notify FedEx that Shipment is Ready

13.10 Dangerous goods pickup - if there are any questions regarding the nature of the dangerous goods contained, the package can be delivered to the FedEx Office in RTP or any other FedEx

shipping location excluding FedEx Kinkos Sites. If it is other than an "Exempt Human Specimens" package, speak directly with the Dangerous Goods Manager.

14. APPENDIX D: ELECTRONIC CREATION OF A FEDEX AIRBILL

To electronically create a FedEx air bill and schedule a pickup for an ambient or Gel-Pack shipment, log onto the FedEx Ship Manager Login Page at [FedEx Ship Manager](#).

14.1 Enter your User ID and Password and click LOGIN.

14.2 *If your name and address do not show, click on Edit, Type in your address information.*

14.3 *Type in the address information for the recipient. Make sure you click on "Perform detailed address check" and "Save new recipient in address book" if you will be sending to this address again.*

14.4 Packaging & Shipping Details

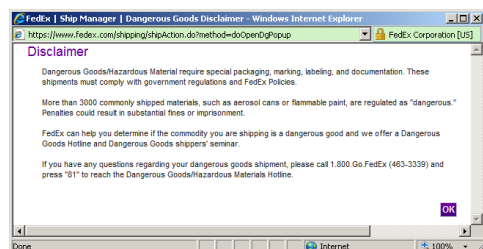
- **Service type.** If you are shipping specimens always select **Priority Overnight**.
- Package Type. Select **Your Packaging**
- Enter **No. of Packages**
- Enter **Weight** in lbs
- **Dimensions.** Click on dropdown and select **Enter Dimensions**.
- Enter **length, width, and height** of the shipper rounded up to the nearest inch.
- **Declared Value.** Enter **\$0 U.S. Dollars**

If you are shipping with Dry Ice, click on Edit on the Special Services Box.

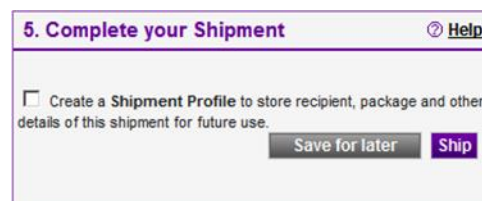
- Click next to Dry Ice
- Enter the weight of the dry ice in pounds

14.5 If you are **Shipping Dangerous Goods**, click on Edit on the Special Services Box.

- Click next to Dangerous Goods
- A pop up box will appear, click on OK



14.6 Complete Your Shipment: **Click on Ship.**



5. Complete your Shipment [Help](#)

☐ Create a Shipment Profile to store recipient, package and other details of this shipment for future use.

Save for later Ship

14.7 Prepare a Shipment: Click on the **PRINT** button. A label will appear on your screen.

- Click on **File / Print** and select your printer.
- Click on **Properties**
- Click on the **Paper** tab
- Select **Source is: Manual Feed** and click on **OK**
- Click OK to print.
- Peel off label and place on the top of your package. FedEx protocol dictates that packages are oriented so that the Airbill is pointed up. If you place the Airbill on the side of the package, your package may be shipped on its side.

15. APPENDIX E: SHIPPING USING A FEDEX USA PAPER AIRBILL – NO SHIPPER DECLARATION REQUIRED

Fill in the following section of the FedEx USA Airbill prior to shipping specimens that do not require a shippers declaration (Exempt Human Specimens & Biological Substance Category B). The number at the left refers to the corresponding section of the Airbill.

1. Fill in **Date of shipment**
Fill in **Your name, phone number, and address**
2. Fill in **Project Code**
3. Fill in **Recipient's address**
- 4a. Check off **Priority Overnight**
5. Check off **Other**
6. Place an **X** in **NO (Does this Shipment Contain Dangerous Goods?)**
7. Put an **X** in **Sender (Payment)**
Fill in **FedEx Number**
Total Packages = **1**
Total Weight = **Total Weight of package in pounds**
Total Declared Value = **\$0**
8. **DO NOT** check anything on this line
9. Complete this if you are shipping with **dry ice only**
Put an **X** in **Dry Ice**
Total # of Packages = **1**
Total Weight of Dry Ice Only = **Total Weight of dry Ice in package in KG**

16. APPENDIX F: SHIPPING USING A FEDEX USA PAPER AIRBILL – SHIPPING DECLARATION REQUIRED

Fill in the following section of the FedEx USA Airbill prior to shipping specimens require a shippers declaration (Biological Substance Category A, Alcohol). The number at the left refers to the corresponding section of the Airbill.

1. Fill in **Date of shipment**
Fill in **Your name, phone number, and address**
2. Fill in **Project Code**
3. Fill in **Recipient's address**
- 4a. Check off **Priority Overnight**
5. Check off **Other**
6. Place an **X** in **Yes – As per attached Shippers Declaration**
7. Put an **X** in **Sender**
Fill in SSS **FedEx Number**
Total Packages = **1**
Total Weight = **Total Weight of package in pounds**
Total Declared Value = **\$0**
8. **DO NOT** check anything on this line
9. Complete this if you are shipping with **dry ice only**
Put an **X** in **Dry Ice**
Total # of Packages = **1**
Total Weight of Dry Ice Only = **Total Weight of dry Ice in package in KG**

17. APPENDIX G: TRANSPORTING SPECIMENS IN PRIVATE VEHICLES

17.1 **Exercise Universal Precautions.** Latex or Nitrile gloves and lab coat are required for the packing of any packages being shipped.

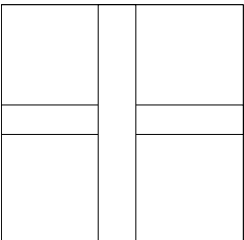
17.2 Equipment and Supplies

- Gloves
- IATA Approved transportation container
- Packing Tape

17.3 Procedure

This procedure applies to SSS employees who are responsible for the transportation of biological specimen to other local affiliated facilities who are using their own vehicles. Individual should follow the following procedures:

- Tape Top of IATA Approved Styrofoam Shipping container in an X Pattern and secure outer fiberboard box with additional tape.
- Label the outside of the box with a Dry Ice Label and a Biohazard Label.
- Secure the package in the car so that it can't tip over. This may include using a cargo net, seat belts, or firmly wedging the package.
- Don't keep dry ice in the car for a prolonged period of time without opening a window.
- Never leave samples in the car unattended.



18. APPENDIX H - SHIPPING CATEGORY A BIOLOGICAL SPECIMENS ON DRY ICE**18.1 Principle**

This procedure describes how to ship Class A Biological Specimens on dry ice. Dry Ice is considered dangerous goods by the Department of Transportation and IATA. The shipping box must therefore be labeled that it contains dry ice alerting the shipper to its special handling instructions. Federal and International Regulations require that those responsible for shipping dangerous goods be trained. Training must be documented and is valid for two years for IATA and three years for DOT.

18.2 Equipment and Supplies

- Cryo protective gloves
- UN 4G (fiberboard) Class 6.2 rated shipping container with Styrofoam secondary container
- Dry Ice label (Dangerous Goods, Category 9, UN1845, White with Black)
- UN 2814 label
- FedEx USA Airbill: www.FedEx.com

18.3 Universal Safety Precautions - Handle all specimens as if capable of transmitting disease. Dry Ice is -80°C . It can cause 3rd degree burns when it contacts exposed skin. Wear cryo protective gloves when handling.

18.4 Procedure for Class A Dangerous Goods

18.4.1 Triple Packaging Specifications - The primary container or the secondary packaging must be capable of withstanding, without leakage, an internal pressure of 95 kPa in the range of -40°C to 55°C .

- **Leak-Proof Primary** containers are tubes holding the actual specimen such as Nunc or Nalgene cryovials. Pack each specimen box as per instruction on page 5. Place into the shipping box. The primary container or the secondary packaging must be capable of withstanding, without leakage, an internal pressure of 95 kPa in the range of -40°C to 55°C .
- **Leak-proof secondary** – Ziploc bags or other leak proof plastic container capable of withstanding, without leakage, an internal pressure of 95 kPa in the range of -40°C to 55°C .
- **Absorbent** material to contain all liquid in package in case of leakage
- Primary or secondary package marked with Biohazard Label
- Class 6.2 Rated Shipping Container is required.
- Package must have one surface with minimum dimensions of at least 4" x 4".

- 18.4.2 Wrap each box with **absorbent material** (paper towels or absorbent bench paper), tape tightly to secure such that there is enough absorbent paper to absorb the liquid content of the package. Place each of these wrapped boxes into a **biohazard labeled** non-brittle **leak-proof secondary** plastic bag, such as a Ziploc bag, forcing out as much of the air as possible.
- 18.4.3 Pack each specimen box as per instructions on page 5.
- 18.4.4 Label the shipment as per **Appendix C** with a **UN 2814 label** in place of the Human Exempt label.
- 18.4.5 Fill out a "Shippers Declaration for Dangerous Goods" Form as per **Appendix A**.
- 18.4.6 Complete the FedEx Airbill either On-Line (**Appendix D** - complete all 10 steps) or using a printed Airbill (See **Appendix F** – Check **Dangerous Goods / As Per Attached Shippers Declaration** in section 6)

19. APPENDIX I - SHIPPING CATEGORY B BIOLOGICAL SPECIMENS ON DRY ICE**19.1 Principle**

This procedure describes how to ship Class B Biological Specimens on dry ice. Dry Ice is considered dangerous goods by the Department of Transportation and IATA. The shipping box must therefore be labeled that it contains dry ice alerting the shipper to its special handling instructions. Federal and International Regulations require that those responsible for shipping dangerous goods be trained. Training must be documented and is valid for two years for IATA and three years for DOT.

19.2 Equipment and Supplies

- Cryo-protective gloves
- Styrofoam secondary container
- 4G type fiberboard box
- Dry Ice labels (Dangerous Goods, Category 9, UN1845, White with Black)
- UN3373 label
- The FedEx Air bill: www.FedEx.com.

19.3 Universal Safety Precautions - Handle all specimens as if capable of transmitting disease. Dry Ice is -80°C. It can cause 3rd degree burns when it contacts exposed skin. Wear cryo protective gloves when handling.

19.4 Procedure

19.4.1 Triple Packaging Specifications - The primary container or the secondary packaging must be capable of withstanding, without leakage, an internal pressure of 95 kPa in the range of -40°C to 55°C.

- **Leak-proof primary** – containers are tubes holding the actual specimen (NUNC vials, Sarstedt Tubes, etc.) and are normally stored in 5"X5" holding boxes at -80 °C.
- **Leak-proof secondary** – Ziploc Bags or other leak proof plastic container
- **Absorbent material** to contain all liquid in package in case of leakage
- Primary or secondary package marked with **Biohazard Label**
- **Class 6.2 Rated Shipping Container** is required.
- Package must have one surface with minimum dimensions of at least 4" x 4"

19.4.2 Wrap each box with **absorbent material** (paper towels or absorbent bench paper), tape tightly to secure such that there is enough absorbent paper to absorb the liquid content of the package. Place each of these wrapped boxes into a **biohazard labeled** non-brittle **leak-proof secondary** plastic bag, such as a Ziploc bag, forcing out as much of the air as possible.

- 19.4.3 Pack each specimen box as per instructions on page 5.
- 19.4.4 Label the shipment as per **Appendix C** with a **UN3373 label** in place of the Human Exempt label.
- 19.4.5 Complete the FedEx Airbill either On-Line (**Appendix D** - complete all 10 steps) or using a printed Airbill (See **Appendix E** – Check **Dangerous Goods No Declaration Required** in section 6)

20. APPENDIX J - SHIPPING A FEDEX INTERNATIONAL DOCUMENTS PACKAGE

20.1 Login to www.fedex.com

20.2 From – Select your name

20.3 To – Either select a destination that has been previously saved or enter a new location. If you enter a new location check the following boxes

20.3.1 Perform detailed address check

20.3.2 Save new recipient in address book

20.3.3 Save changes in address book

20.4 Package Shipment Details

20.4.1 Select Service Type

- International priority – usually takes 3 days if no customs issues
- International economy – usually takes 1 week unless there are customs issues

20.4.2 Package Type – select one of the following

- Your Packaging – then enter the # of packages, weight and dimensions
- FedEx Packaging

20.4.3 No. of Packages – 1

20.4.4 Dimensions – Enter L/W/H

20.4.5 Carriage Value – enter \$0

20.4.6 Package Contents

- Documents – Select if documents/papers/manuals
 - Document Description – select Data Sheets
 - Shipment Purpose – Commercial
- Products/Commodities

20.4.7 Total Customs Value – Put in a reasonable value here but do not exceed \$500

20.5 Billing Details

20.5.1 Bill Transportation to – Our account number

20.5.2 Bill Duties/taxes/fees to – Sender (prepaid)

20.5.3 Your Reference – Enter the charge code for the project you are shipping for

20.6 E-Mail notifications

20.6.1 Sender – Enter your E-mail Address and check off Ship / Exception / Delivery

20.6.2 Recipient – Enter the receivers E-mail Address and check off Ship / Exception

20.6.3 Add a Personal Message – Put in what is in the box you are shipping

20.7 Customs Documentation – select Commercial Invoice. This will generate the required commercial invoice.

20.8 SHIP – This will bring up the airbill print screen.

20.9 Airbill Screen – Click on PRINT. This will bring up your printer dialog box. Print one copy and make sure that you are printing single sided. The printout will give you 2 copies of the airbill and four copies of the Commercial Invoice. Keep one copy of the airbill and the commercial invoice. Fold the remaining 4 sheets of paper in half and place them in a purple edged international documents airbill pouch with the airbill facing up. Peel off the backing and place on the top of the box being shipped.

20.10 E-Mail – Send the tracking number to the recipient with a description of the contents.

21. APPENDIX K – EXAMPLE LIST OF CATEGORY A INFECTIOUS SUBSTANCES

UN # and Proper Shipping Name	Micro-organism	
UN 2814, Infectious Substances Affecting Humans	<ul style="list-style-type: none"> - <i>Bacillus anthracis</i> cultures - <i>Brucella abortus</i> cultures - <i>Brucella melitensis</i> cultures - <i>Brucella suis</i> cultures - <i>Burkholderia mallei</i> & <i>Pseudomonas mallei</i> cultures - <i>Burkholderia pseudomallei</i> cultures - <i>Chlamydia psittaci</i> – avian strains cultures - <i>Clostridium botulinum</i> cultures - <i>Coccidioides immitis</i> cultures - <i>Coxiella burnetii</i> cultures - Crimean- Congo hemorrhagic fever virus - Dengue virus cultures - Eastern equine encephalitis virus cultures - Ebola virus - <i>Escherichia coli</i>, verotoxigenic cultures - Flexal virus - <i>Francisella tularensis</i> cultures - Guanarito virus - Hantaan virus - Hantavirus causing hemorrhagic fever with renal syndrome - Hendra virus - Hepatitis B virus cultures - Herpes B virus cultures - Highly pathogenic avian influenza virus cultures - Human immunodeficiency virus cultures - Japanese Encephalitis virus cultures 	<ul style="list-style-type: none"> - Junin virus - Kyasanur Forest disease virus - Lassa virus - Machupo virus - Marburg virus - Monkeypox virus - <i>Mycobacterium tuberculosis</i> cultures - Nipah virus - Omsk hemorrhagic fever virus - Poliovirus cultures - <i>Pseudomonas pseudomallei</i> cultures - Rabies virus cultures - <i>Rickettsia prowazekii</i> cultures - <i>Rickettsia rickettsia</i> cultures - Rift Valley fever virus cultures - Russian spring-summer encephalitis virus cultures - Sabia virus - <i>Shigella dysenteriae</i> type 1 cultures - Tick-borne encephalitis virus cultures - Variola virus - Venezuelan equine encephalitis virus cultures - West Nile virus cultures - Yellow fever virus cultures - <i>Yersinia pestis</i> cultures

UN 2900, Infectious Substances Affecting Animals	<ul style="list-style-type: none">- African swine fever virus cultures- Avian paramyxovirus Type 1- Velogenic Newcastle disease virus cultures- Classical swine fever virus cultures- Foot and mouth disease virus cultures- Lumpy skin disease virus cultures- <i>Mycoplasma mycoides</i>- Contagious bovine pleuropneumonia cultures- Peste des petits ruminants virus cultures- Rinderpest virus cultures- Sheep pox virus cultures- Goatpox virus cultures- Swine vesicular disease virus cultures- Vesicular stomatitis virus cultures
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22. APPENDIX L – SHIPPING INFORMATION SUMMARY

Shipment Type	Proper Shipping Name	UN Number	Hazard Class	Packing Group (PG)	Packing Instruction (PI)	Hazard Label(s)	Max. Net qty./pkg. for Passenger Aircraft	Max. Net qty./pkg. for Cargo Aircraft	Special Provisions (**)
Category A infectious substance, affecting humans	Infectious substance, affecting humans, (*)	UN 2814	6.2	-	602	Infectious substance	50mL / 50g	4L / 4kg	A81, A140
Category B infectious substance	Biological substance, category B	UN 3373	6.2	-	650	UN3373	4L / 4kg	4L / 4kg	-
Dry Ice	Dry Ice	UN 1845	9	III	904	Miscellaneous	200kg	200kg	A48
Exempt Human Specimens (minimal likelihood that pathogens are present)	N/A	N/A	N/A	N/A	See Checklist on Pg.6	N/A	N/A	N/A	N/A

*** Identify technical name of agent in parenthesis**

**** Special Provisions:**

A81 – The maximum quantity of infectious substance that can be shipped by air in one package is 4L or 4kg. The maximum quantity that may be shipped via passenger aircraft is 50mL or 50g. The Special Provision A81 allows the shipment of body parts, organs or whole bodies to not be restricted based on quantity limits, however the shipment must still comply with Packing Instruction 602. Specimens transported in accordance with this Special Provision must be noted on the Shipper's Declaration of Dangerous Goods in the "Authorization" column of the Declaration form.

A48 – Packaging tests are not considered necessary.

A47 – Genetically modified micro-organisms and genetically modified organisms, which meet the definition of an infectious substance and the criteria for inclusion in Division 6.2 (Category A or Category B Infectious Substances), must be transported as UN 2814, UN 2900 or UN 3373, as appropriate.

A140 – For the purposes of documentation, the proper shipping name must be supplemented with the technical name. Technical names need not be shown on the package. When the Infectious Substances to be transported are unknown, but suspected of meeting the criteria of Category A, and assigned to UN 2814 or UN 2900, the words “Suspected Category A Infectious Substance” must be shown in parenthesis following the proper shipping name on the Shipper’s Declaration of Dangerous Goods, but not on outer package.

23. APPENDIX M – CHECKLIST FOR SHIPPING HUMAN EXEMPT SPECIMENS

Specimen Packaging

- ☐ Specimen in leak proof primary container
- ☐ Absorbent material is sufficient to absorb entire contents of primary container(s)
- ☐ Primary containers are wrapped individually
- ☐ Leak proof secondary container

Labeling Outer Container

- ☐ Statement: "Exempt human specimen" or "Exempt animal specimen"
- ☐ Miscellaneous Class 9 label(2) if shipment contains dry ice, "UN 1845" and amount used in kg

Completing the Airbill

- ☐ Name and address of shipper and recipient
- ☐ Check "Saturday Delivery" box if applicable
- ☐ In Section 6 (Special Handling) of the airbill, indicate that the shipment is NOT a dangerous good
- ☐ Check the "Dry Ice" box if applicable and indicate "UN 1845" and the quantity of dry ice in kg
- ☐ Shipper's signature (optional)

Note: In determining whether a specimen is Human Exempt has a minimal likelihood that pathogens are present, an element of professional judgment is required. That judgment should be based on the known medical history, symptoms and individual circumstances of the source and endemic local conditions.

24. APPENDIX N – CHECKLIST FOR SHIPPING CATEGORY A INFECTIOUS SUBSTANCES

Specimen Packaging

- ☐ Specimen in leakproof primary container
- ☐ Absorbent material is sufficient to absorb entire contents of primary container(s)
- ☐ Primary containers are wrapped individually
- ☐ Leakproof secondary container
- ☐ Itemized list of contents placed between secondary and outer container

Labeling Outer Container

- ☐ Infectious Substance, Class 6 label
- ☐ "Infectious Substance Affecting Humans", "UN 2814" or "Infectious Substance Affecting Animals, "UN 2900" and net quantity of infectious substance
- ☐ Miscellaneous Class 9 label if shipment contains dry ice, "UN 1845" and amount used in kg
- ☐ Name and telephone number of the responsible party, knowledgeable of the package contents and available 24 hours a day
- ☐ If shipment includes >50mL or 50g of a Category A infectious substance, then add a "Danger, do not load in passenger aircraft" label to the outer container

Dangerous Goods Declaration Form

- ☐ Name, address and phone number of shipper and recipient
- ☐ Mark out non-applicable "Aircraft Box"
- ☐ Mark out non-applicable "Radioactive" box
- ☐ 24-hour emergency response telephone number for the responsible party, knowledgeable of the package contents
- ☐ Name and title of signatory, place, and date
- ☐ Shipper's signature

"Nature and Quantity of Dangerous Goods" section of the Declaration Form

- ☐ Complete this section using the information provided on Pages 5, 9 & 10 of this Guide

25. APPENDIX O - CHECKLIST FOR SHIPPING CATEGORY B INFECTIOUS SUBSTANCES

Specimen Packaging

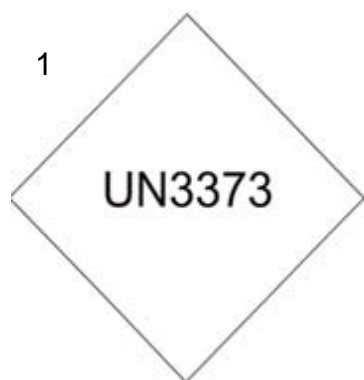
- ☐ Specimen in leak proof primary container
- ☐ Absorbent material is sufficient to absorb entire contents of primary container(s)
- ☐ Primary containers are wrapped individually
- ☐ Leak proof secondary container
- ☐ Itemized list of contents placed between secondary and outer container

Labeling Outer Container

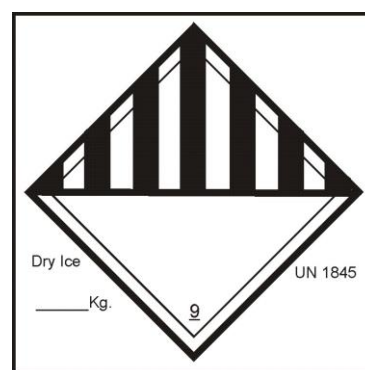
- ☐ UN 3373 label (1)
- ☐ Statement: "Biological Substance, Category B" adjacent to UN 3373 label
- ☐ Miscellaneous Class 9 label (2) if shipment contains dry ice, "UN 1845" and amount used in kg

Completing the Airbill

- ☐ Name and address of shipper and recipient
- ☐ Check "Saturday Delivery" box if applicable
- ☐ In Section 6 (Special Handling) of the airbill, indicate that the shipment is a dangerous good, which does NOT require a Shipper's Declaration
- ☐ Check the "Dry Ice" box if applicable and indicate "UN 1845" and the quantity of dry ice in kg
- ☐ Shipper's signature (optional)



2



26. APPENDIX P – SHIPPING INFECTIOUS SUBSTANCES TO CANADA

When you are exporting human specimens to Canada follow the following guidelines depending on the Biological substance classification.

26.1 Public Health Agency of Canada (PHAC)

26.1.1 Website: <http://www.phac-aspc.gc.ca/lab-bio/permits/imp-permit/>

26.1.2 Phone: 613-957-1779

26.1.3 Email: permit-permis@phac-aspc.gc.ca

26.2 Human Exempt Specimens

Human exempt specimens for Canada are classified as biological specimens from healthy individuals that contain no known pathogens. Follow these steps before shipping exempt specimens to Canada.

26.2.1 **IATA** – Package the specimens according to IATA International shipping standards and label with “Human Exempt Specimens” label.

26.2.2 Canada – Public Health of Canada (PHC) and Border Services of Canada require the following:

- Create a label on the outside of the package that states **“This package is from Healthy Individuals and Contains No Pathogens”**.
- Have the receiving lab send an **e-mail** to permit-permis@phac-aspc.gc.ca (PHC) stating that the samples they are receiving are from healthy individuals and contain no pathogens. The PHC will send them an e-mail authorizing the shipment(s). This e-mail must then be placed on the outside of the shipping package so that Border Security of Canada can read it.

26.3 Biological Substances Class B UN3373

Whenever you are shipping Class B Specimens to Canada the receiving lab needs to apply for an import permit.

26.3.1 **IATA** – Package the specimens according to IATA International shipping standards and label with a “UN3373” diamond label.

26.3.2 **The receiving lab must fill out an “Application for permit to import human and/or terrestrial animal pathogen(s)”**. Below are links to the instructions and permit application. After receiving the permit the receiving lab must send the permit to the shipper so that it can be applied to the **exterior of the package**.

- <http://www.phac-aspc.gc.ca/lab-bio/permits/index-eng.php>
- <http://www.phac-aspc.gc.ca/lab-bio/permits/imp-permit/how-comment-eng.php>
- <http://www.phac-aspc.gc.ca/lab-bio/permits/assets/pdf/permit-permis-eng.pdf>

27. APPENDIX Q – SHIPPING INTERNATIONAL WITH WORLD COURIER

27.1 WC Account information

- Account
- Customer Service 800-221-6600

27.2 World Courier Contacts

Brian Hoyt
International Customer Service Rep
1-800-221-6600 x2103
bhoyt@worldcourier.com

John Racine
S-3 Account Rep
919-453-2339
516-220-8988 (Cell)
jracine@worldcourier.com

27.3 CDC Statement

If you are shipping Exempt Human Specimens into the US from a foreign country you must fill out a CDC statement. The following information must appear on the statement and must be printed on letterhead.

CDC – To Whom It May Concern

Date:

Shipper:

Consignee:

Contents: **Non Hazardous/Non Infectious Human Blood / Serum /
Urine /**

Quantity: _____mL

For Laboratory Testing only

**This material is not known or suspected to contain an etiological agent,
host, or vector of human disease.**

**Shipment has been packaged, labeled and transported in accordance
with all applicable regulations.**

27.4 Shipping Instructions

27.4.1 Before sending any international shipments, **contact customer service** at World Courier (1-800-221-6600) and ask them if there are any import permits or other special requirements required to ship to the destination country. (e.g., for all EU countries the pro forma invoice must state that there are no animal specimens or animal byproducts)

27.4.2 **Collect and document** the following information for the Customs Invoice before proceeding. The customs invoice must be printed on letterhead and must be signed:

- World Courier Job#
- World Courier Reference Name (You create this name to help you identify individual shipments)
- Total volume of shipment (ex. 62.4ml)
- Material type of shipment (ex. serum)
- Classification of shipment (ex. non-infectious Human Exempt or Class B)
- Destination (consignee) contact information:
 - Consignee Name, Title, and telephone number
 - Consignee Address (complete address)
- Senders contact information
- Dimensions of shipper (WxLxH)
- Total weight of shipper with samples and dry ice
- Weight of dry ice in shipper in kg if being used
- Date to ship and Date to arrive
- Customs Value = \$100
- Account #
- Billing Reference
- Indicate if you or World Courier will be supplying the shippers and dry ice.
- Indicate if you want "dry ice replenishment"

27.4.3 Fill out a World Courier formatted [proforma invoice](#)

27.4.4 Call World Courier to arrange the pickup (contact information above) and set replenishment schedule for dry ice.

27.4.5 Produce a shipping manifest listing all of the specimens in the shipment

27.4.6 Email the following documents to documents@worldcourier.com

- Word Document listing the information collected in step 2 above
- Proforma Invoice

- Shipping Manifest with list of samples being shipped

27.4.7 Call World Courier International Customer Service at 1-800-221-6600

- Give them the customer Account
- The rep will walk you through all of the information they will need
- They will send you an e-mail confirming the shipment

27.4.8 If you need to change the date of the pickup, call World Courier International Customer Service at 1-800-221-6600

27.4.9 The day of the pickup

- Pack the shipment according to IATA standards
- Include copy of the shipping manifest in a Ziploc bag on top of the Styrofoam shipper
- Place the appropriate stickers on the box
- Dry Ice label with weight of dry ice marked in kg
- Human exempt sticker
- Place three copies of the Proforma Invoice sticking out of an airbill pouch on top of the shipper
- Note the exact weight of the entire package and the dry ice for the courier
- When the courier arrives he will have you sign the waybill and take the package

27.4.10 Destination country specific information

- EU – make sure you write the following on the proforma invoice “This shipment does not contain any animal products or byproducts”.
 - Human Exempt – UK does not require import permit
 - Class B – Import permit required. Check each country for requirements.
- **US** – make sure you write the following on the proforma invoice “This shipment does not contain any animal products or byproducts”.
 - Human Exempt –Does not require import permit
 - Class B – Import permit required from CDC