

Frequently Asked Questions

Last updated: September 28, 2017

How do I request Biorepository number labels and/or 2ml standard cryovials (supplied by GGI)?

Contact any of the following people for labels and/or cryovials (see list below). Include the number of labels/tubes needed, the department (VZ-Fishes, Botany, Entomology, etc.) you are collecting for and the name of the project. Biorepository numbers can only be assigned by designated biorepository staff members. Designated staff members denoted by asterisk (*).

1. Chris Huddleston*, Biorepository manager. Email: HuddlestonC@si.edu
2. Ashton Smith, GGI Biorepository technician. Email: SmithA@si.edu
3. Daniel DiMichele*, Biorepository technician. Email: DiMicheleDL@si.edu
4. Amanda Devine*, GGI Data technician. Email: DevineA@si.edu

Do I have Biorepository-approved containers and where do I get them?

Refer to the list of pre-approved cryovials, plates, coin envelopes, etc. included in the GGI Biorepository Training Module. Containers can be obtained through the Biorepository or purchased on your own. Please consult with Biorepository staff before ordering your own supplies to ensure they are Biorepository-approved.

How far in advance do I need to request supplies, equipment and/or services from the Biorepository?

Item or Service	One Month Prior to Departure	At Least Two Weeks Prior to Departure
Generate Biorepository Labels		X
Request Preservative Solutions (95% ethanol, EDTA/DMSO, Lysis buffer)	X	
Request Dewar/Dry-Shipper	X	
Request Shipping Service (FedEx or Cryoport)		X

What is the correct orientation for a Biorepository label on a cryovial?



Do 2-D Barcode cryovials inside 2-D Barcode Plates get labeled with Biorepository numbers?

No. 2-D Barcode cryovials are not physically labeled with Biorepository numbers (though they do receive a virtual Biorepository number). Collectors using these cryovials will not receive physical Biorepository number labels; instead Biorepository numbers will be associated with the scanned 2D Barcode number at the bottom of each 2-D Barcode cryovial.

How many standard cryovials (2mL) fit inside a 10 Liter LN2 Dewar/Dry-Shipper?

Approximately 400-450 2mL tubes can fit inside a 10 Liter Dry-shipper.

What are the dimensions and weight of a LN2 Dewar/Dry-Shipper (with shipping container)?

Small tank (10 L)

18" X 18" X 25" 26 lb. (uncharged), 31 lb. (charged with LN)

46 cm X 46 cm X 64 cm 12 kg (uncharged), 14 kg (charged with LN)

Large tank (10 L wide mouth)- *tank typically only used for local collecting trips*

22" X 22" X 27" 50 lb. (uncharged), 68 lb. (charged with LN)

56 cm X 56 cm X 69 cm 23 kg (uncharged), 31 kg (charged with LN)

Note: Weights listed above do not include samples.

How long does a LN2 Dewar/Dry-Shipper stay cold after it's been charged with liquid nitrogen?

As a Dry-Shipper (no liquid inside tank):

Small tank (10 L)

Tank stored upright = 17 days

Tank stored on its side = < 7 days

Tank stored upside down = < 2 days

Large tank (10 L wide mouth)- *tank typically only used for local collecting trips*

Tank stored upright = 10 days

Tank stored on its side = 4 days

Tank stored upside down = 1 day

As a Dewar (liquid inside tank):

Small tank (10 L)

Tank stored upright = **currently being tested**

Large tank (10 L wide mouth)- *tank typically only used for local collecting trips*

Tank stored upright = Unknown. Not tested.

How long does it take to charge a LN2 Dewar/Dry-Shipper tank?

2 hours. It's best to charge 2 hours, then top off with more liquid nitrogen.

After collecting, where and to whom do I ship my sample-filled LN2 Dewar/Dry-shipper?

All GGI-related LN tank shipments can be shipped directly to the NMNH Biorepository to Ashton Smith at the following address:

Ashton Smith (301-238-1885)
Smithsonian Institution
NMNH Biorepository
Museum Support Center
4210 Silver Hill Rd.
Suitland, MD 2074

What is the very important phrase to include on the shipping waybill when shipping a Liquid nitrogen tank?

“Not restricted as per special provision A152.” This phrase notifies/reminds all shipping personnel that the liquid nitrogen tank is not considered a hazardous good under this special provision. See FedEx waybill example below (press hard when writing phrase on the waybill):

FedEx Express Package US Airbill FedEx Tracking Number: 8108 8223 0919

1 From Please print and press hard. Sender's FedEx Account Number: [Redacted]

2 Your Internal Billing Reference (Optional)

3 To Recipient's Name: **Ashton Smith** Phone: **301,238-1884**
Company: **NMNH Biorepository**
Address: **Museum Support Center**
4210 Silver Hill Road
City: **Suitland** State: **MD** ZIP: **20746**

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon. * Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning. * Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day. * Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One box must be checked.

No Yes (see attached Shipper's Declaration) Yes (Shipper's Declaration not required) Dry Ice, 3 UN 195 _____ kg Cargo Aircraft Only

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below.

Sender Acct. No. in Suitland will be billed. Recipient Third Party Credit Card Cash/Check

FedEx Acct. No. _____
Credit Card No. _____
Exp. Date _____

Total Packages: **1** Total Weight: **29** lbs. Total Declared Value: **2,500**

Your liability is limited to USD\$100 unless you declare a higher value. See back for details. By using this airbill you agree to the service conditions on the back of this airbill and in the current FedEx Service Guide, including terms that limit our liability.

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What is the very important phrase to include on the shipping waybill when shipping biological specimens inside a liquid nitrogen tank?

Include the phrase “Dry shipper containing dead [insects or *whatever biological specimen*] for scientific study” when filling out the commodity description of section 3 of the international waybill. The word DEAD is very important to include so FedEx and Customs is aware the biological specimens inside the tank are not alive. See example below:

FedEx Express International Air Waybill

Sender's Copy

1 From Please print and press hard.
 Date: 3/22/2017
 Sender's FedEx Account Number: [redacted]
 Sender's Name: [redacted] Phone: [redacted]
 Company: [redacted]
 Address: [redacted]
 Address: [redacted]
 City: [redacted] State: [redacted] Province: [redacted]
 Country: [redacted] ZIP Postal Code: [redacted]

2 To
 Recipient's Name: Ashton Smith Phone: 301-238-1895
 Company: Smithsonian Institution
 Address: Museum support Center
 Address: 4210 Silver Hill Rd.
 City: Suitland State: MD
 Country: USA ZIP Postal Code: 20746
 Recipient's Tax ID Number for Customs Purposes: [redacted]

3 Shipment Information **Fed Ex Only:** Tick here if goods are not in free circulation and payable CI.
 Total Packages: 1 Total Weight: 29 kg DIM 18 / 18 / 25 in cm
 Commodity Description: Dry Shipper containing dead insects for scientific study. Plastic shipping container
 Harmonized Code: [redacted] Country of Manufacture: USA Value for Customs: USD \$1
 Harmonized Code: [redacted] Country of Manufacture: USA Value for Customs: USD \$1

4 Express Package Service
 FedEx Intl. Priority FedEx Intl. First
 FedEx Intl. Economy

5 Packaging
 FedEx Envelope FedEx Pak FedEx Box FedEx Tube
 Other plastic container FedEx 10kg Box* FedEx 25kg Box*

6 Special Handling
 HOLD at FedEx Location SATURDAY Delivery

7a Payment Bill transportation charges to:
 Sender Acct. No. in Section 1 will be billed Recipient Third Party Credit Card Cash Check/ Cheque

7b Payment Bill duties and taxes to:
 Sender Acct. No. in Section 1 will be billed Recipient Third Party

8 Your Internal Billing Reference: GGI-1

9 Required Signature

For Completion Instructions, see back of fifth page.

FedEx Tracking Number: 8672 7976 7721 Form ID No. 0402

Ship and track packages at fedex.com

Questions? Go to our Web site at fedex.com.

How much tissue is needed for a DNA extraction on the L.A.B. Autogen?

A piece of tissue 2mm³ in size. In other words, about half the size of a dull, No.2 lead pencil tip. It is recommended to take more than this (if possible) for tissues destined for the Biorepository.

Do I need to wrap my cryovials in aluminum foil before dropping the samples into the LN tank?

Yes! Wrapping cryovials in aluminum foil prevents the labels and/or lids from popping off in the liquid nitrogen. See example below. Also, any writing on the outside of the vials must be in pencil (not ink). Ink can come off with ethanol and other solvents.

