SARS-CoV-2 IS REQUIRED TO BE SHIPPED AS A CATEGORY B INFECTION SUBSTANCE (UN3373) AND PACKAGED UNDER INSTRUCTION 650 PER IATA DANGEROUS REGULATED GOODS (DRG) WHEN OFFERING A SHIPMENT TO A COMMERCIAL CARRIER (FED-EX/UPS).

49CFR §107.329 outlines the civil penalties that can be levied on any persons who knowingly violate a requirement of the Federal Hazardous Material Transportation Law.

Shipping Lab Specimens as Category B

- For **small volumes of samples**, utilize a FedEx UN 3373 Lab Pak following instructions on pages 2-3.
  - FedEx UN 3373 Lab Pak can be ordered on the FedEx website [https://www.fedex.com/en-us/home.html](https://www.fedex.com/en-us/home.html) and are free of charge.
    - For the FedEx Lab Pak, orange top containers can be requested from the Wyoming Public Health Laboratory by completing and submitting the Supply Order Form found on our website, [https://health.wyo.gov/publichealth/lab/](https://health.wyo.gov/publichealth/lab/)
    - Refrigerate your specimens at 2-8°C and ship overnight to the WPHL with sufficient ice packs with your specimens to keep them cold throughout transport.

- For **large volumes of samples**, utilize a UN3373 Category B insulated shipping box, following instructions on page 4.
  - UN3373 Category B Insulated Shipping Boxes can be purchased through many different vendors.
  - Specimens must be refrigerated at 2-8°C and shipped overnight to the WPHL with sufficient ice packs with your specimens to keep them cold throughout transport.

- For **frozen samples**, utilize a UN3373 Category B insulated shipping box, following instructions on page 5. Frozen samples must be transported on dry ice.
  - A complete example of a Category B box labeled and marked for shipment can be viewed on page 6.
  - Diagram of triple packaging for Category B specimens can be viewed on page 7.

FedEx Shipping Labels for shipping specimens Monday through Thursday are available on the Wyoming Public Health Laboratory website at:

[https://health.wyo.gov/publichealth/lab/](https://health.wyo.gov/publichealth/lab/)

Utilize the WYDOT courier for weekend deliveries when sending specimens to the WPHL, Saturday through Monday. For guidance with shipping issues, contact:

- Shawna Dereemer  
  shawna.dereemer@wyo.gov  
  777-3735

- Gale Stevens  
  gale.stevens@wyo.gov  
  777-3375
Shipping regulations covering the shipment of infectious substances by commercial carriers is regulated by the Department of Transportation. Specific guidelines are followed when offering a UN3373 Category B infectious substances, for shipment and must be packaged in the following manner. (49 CFR Parts 100 – 185 §173.199)

**CATEGORY B SHIPPING SUPPLY LIST:**

1. Fed Ex Category B Shipper (UN3373)
2. Viral Transport Media (VTM)
3. Biohazard Specimen Bag with absorbent pad inside
4. Cold Pack
5. Orange Topped Container with UN3373 Marking affixed
6. WPHL Requisition

(Category B must be packed in a triple packaging consisting of:

1. (1) A primary receptacle
2. (2) Secondary packaging
3. (3) Rigid outer packaging labeled appropriately with the UN3373 Diamond

1. (1) PRIMARY RECEPTICAL - VTM containing collection swabs.
2. (2) Biological specimen bag with absorbent material serves as SECONDARY PACKAGING.
3. (3) Orange canister with appropriate marking that serves as RIGID OUTER PACKAGING.)
• Once specimen is collected and placed in VTM (1), ensure the VTM tube is tightly closed, and place into a biohazard specimen bag containing an absorbent pad (2). Place the WPHL requisition in outer pouch of the bag.

• Seal the biohazard specimen bag tightly and place it inside the orange topped container with enough ice packs to maintain the integrity of the specimen during shipment. Close the container with the orange lid.

• Place the sealed container inside the FedEx shipment pack, ensuring you are using the pack designated for shipping of UN3373, Biological Substances. (It is important to use the appropriate packaging in order to meet the mandatory requirements of the 49 CFR Parts 100 – 185 (§173.199).

You have now successfully packaged your specimen to ship legally under the specified regulations.
Category B must be packed in a triple packaging consisting of a primary receptacle (1), a secondary packaging (2), and rigid outer packaging (3), and labeled appropriately with the UN3373 Diamond. Supplies are the same except you will need a Category B insulated box instead of the Fed Ex Lab Pak and orange topped container.

- As with the example on page 2, ensure the VTM tube is tightly closed. Put the tube into a biohazard specimen bag containing absorbent material and place the WPHL requisition in the outer pocket.
- Seal the biohazard sample bag tightly and place it inside the insulated box.
- You may ship as many samples that will fit safely inside the insulated box, leaving enough room to include enough ice packs to maintain the specimens at the appropriate temperature during shipment.
- Cap the insulated box with the supplied Styrofoam lid, close the box and tape it shut with packaging tape.

Label the outside of the box with the appropriate information, including a phone number for your facility, and include the UN 3373 Diamond, Biological Substance, Category B on the box.

You have now successfully packaged your specimen to ship legally under the specified regulations.
Frozen specimens must remain frozen during shipment to the WPHL. Shipments of frozen specimens must be shipped on dry ice.

**DRY ICE:**
- Solid Carbon Dioxide (CO\(_2\))
- Considered hazardous during transportation
- Releases CO\(_2\) as it sublimates, which replaces oxygen in its vicinity, creating a suffocation hazard in confined spaces (such as on airplanes or in transport vehicles)
- Packages containing dry ice can explode if venting isn’t provided
- CO\(_2\) causes severe frost bite when coming into contact with skin
- CO\(_2\) must be identified if used in your shipment by applying the Dry Ice, UN1845 Category 9 Diamond marking
  - The amount of dry ice in the shipment must be noted on the outer box in kilograms. (2.2 lbs = 1 Kg)

As with all Category B, UN3373 shipments, the specimens are triple packed as outlined previously in this document. A Category B Insulated Box is used for frozen shipments. (see pg. 4).

- Dry ice is added under and around the bagged specimens inside the insulated box. NOTE: Protect your skin with gloves when handling dry ice.
- Close the cooler with the Styrofoam lid once your specimens and dry ice are in place. Close the outer box and tape it in a way that allows for CO\(_2\) to escape. (place a strip of package tape across the top center of the box, leaving the top sides untapped for venting).
- Mark and label the box with the UN3373, Biological Substance Category B Diamond. Include the appropriate addresses and the phone number of the person responsible for the shipment on the outside of the box. Affix the Category 9 Diamond UN1845 Dry Ice, including the weight of dry ice on the box in kilograms.

The package is ready for shipment:

**Example of Category B Shipment With Dry Ice**

[Image of a boxed shipment example]

View the Packing Instruction 650, IATA Dangerous Goods Regulations here:

The UN3373 mark specifies that the shipment contains a Category B Biological Substance.

Dry Ice shipments must include a UN1845 mark and notes the amount of dry ice in the shipment (in kilograms). 2.2 lbs = 1 Kg

Your package will look like this when you are done.

Directional marks are usually printed directly on the sides of the box.

Include the amount of dry ice in kilograms on the outside of the box.

Dry Ice UN1849 is not used when shipping refrigerated samples on ice packs.

Include a phone number for your facility on the outside of the box of a person who will be responsible for the shipment.

You have successfully packaged a Category B frozen specimen packed on dry ice for shipment.
**Category B Infectious Substance**

Package, label, and ship low- or moderate-risk specimens as a **Category B** infectious substance (UN 3373) in accordance with the U.S. Department of Transportation’s Hazardous Materials Regulations and the International Air Transport Association Dangerous Goods Regulations.