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Shipping Guidance for Category B Specimens

ADPH staff and private providers who pack and transport clinical specimens to the Bureau of Clinical Laboratories (BCL) through a private courier or by dropping off at a county health department should use this guide to ensure specimens are transported in a safe, secure, and timely manner. Providers who ship specimens through commercial shipping companies should not use this guide and instead follow guidance provided by the CDC's OneLab™ initiative. Providers are required to use plastic tubes for the collection of whole blood.

Refer to the **newly revised** *BCL Analyte List* found at www.alabamapublichealth.gov/bcl for:

- Type and volume of specimen required
- Type of tube or collection kit required
- Collection, storage, and shipping requirements
- Other special instructions

Specimen tube/Primary container labeling requirements:

- Two patient identifiers
 - e.g. patient's first and last name, assigned account number, birthdate, etc.
- Date of sample collection
- Transport tubes **must** be labeled as "serum" or "plasma".
- Suggested: Include test requested

It is the submitter's responsibility to ensure that specimens are appropriately packaged to prevent leakage and to maintain the appropriate temperature during transit. All Category B specimens must be packed, labeled, and documented according to the US Department of Transportation's (DOT) Hazardous Material Regulations (HMR) 49 CFR § 100-185.

CATEGORY B SPECIMEN TRIPLE PACKAGING REQUIREMENTS (49 CFR §173.199)

Ensure that specimens are at the proper temperature prior to shipment. Please refer to the *BCL Analyte List* for temperature shipping requirements.

1. Primary Container/Package

- Primary containers 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 packaging.



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- Liquid specimens are placed in a sealed plastic leakproof container (e.g. blood tubes, VTM tubes, Hologic Aptima tubes). Please ensure that any seals (e.g. rubber stoppers, screw caps) are tight and secure.
- For other specimens please refer to the *BCL Analyte List* for container requirements.

2. Secondary Container/Package

- Primary container(s) must be packed into a sealed leakproof secondary container. (e.g., plastic zip closure bags)
 - Absorbent material must be placed between primary and secondary container/packages of sufficient quantity to absorb the entire contents of the primary container(s).
 - Packing one patient specimen per bag will reduce chances of cross contamination.
 - Specimens that travel upright, in a rack, without touching, are preferred.



- Test requisitions and itemized content list should be placed between the secondary container and outer package. The requisition can be attached to the outside of the rigid outer packaging if it will not fit between the secondary container and outer package.

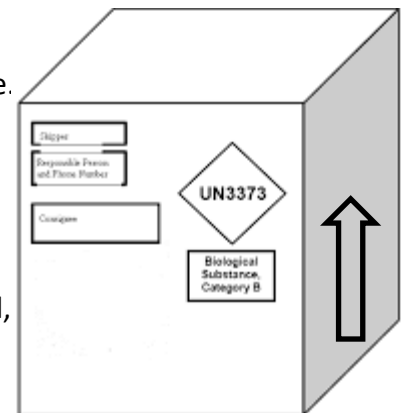
3. Rigid Outer Container

- Secure secondary container/package inside a rigid outer container like a cooler or cardboard box and use additional cushioning to secure secondary packaging, if needed.
 - Temperature dependent specimens should be transported in insulated packaging of sufficient material to hold samples at the allowed temperature range for the entire voyage to the lab.



4. Labeling

- Ensure rigid outer container is marked with:
 - The standardized UN3373 diamond on one side of the package.
 - The exact phrase “Biological Substance, Category B” adjacent to the standardized UN3373 diamond.
 - Name and telephone number of a responsible official.
 - Facility name and address of the shipper and recipient.
 - Orientation arrows on opposing sides if shipping liquids (blood, urine, swab in liquid media, etc.).



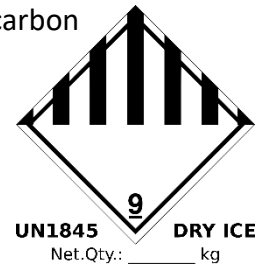
5. Shipping Refrigerated or Frozen Specimens

- Specimens should be refrigerated after collection and must already be within the allowed temperature range for the requested test methods prior to packing.
 - Failure to refrigerate specimens before packing can result in the ice packs being depleted too quickly and specimens not staying within the allowed temperature range.
- When shipping specimens at refrigerated temperatures (2-8°C), include no less than two fully frozen ice/gel packs between the secondary container and rigid outer container.

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Specimens should be sandwiched between ice packs with a thin layer of absorbent material between the ice packs and specimen(s) to prevent direct contact which may cause the specimens to get too cold/below acceptable range.

- Add extra absorbent material to cushion the contents and note temperature handling conditions on rigid outer container (i.e. “Refrigerate upon arrival”).
- When shipping frozen specimens (<0°C), include dry ice between secondary container and rigid outer container. Add extra absorbent material and note temperature handling conditions on rigid outer container (i.e. “Keep frozen upon arrival”).
 - Rigid outer container must not be sealed tightly to permit the release of carbon dioxide gas.
 - Packaging must maintain integrity and temperature.
 - Rigid outer packaging must also be marked with the Class 9 miscellaneous dangerous goods label, the exact phrases “Dry Ice” and “UN1845”, and the quantity of dry ice in kg. Place label on same side of rigid outer container as UN3373 label.



6. After specimens are packaged and ready for transport to the lab, the package should be kept secured in a climate-controlled area away from direct sunlight.
7. ADPH Courier Transport from County Health Departments to BCL
 - The ADPH *Courier Log* must be filled out by a county health department (CHD) staff member. This document can be found in the Lotus Document Library in the ACHDLS category. Please ensure the following information is completed before courier pick up:
 - Initials of CHD staff member
 - From (check box for CHD and/or Private provider)
 - Destination (check applicable boxes)
 - Number of boxes/coolers
 - Number of bags/envelopes
 - The courier should do the following upon pick up of laboratory specimens:
 - Verify that the number of boxes/coolers and bags/envelopes is equal to what they are receiving
 - Print their initials
 - Print the date and time of pick-up
 - Indicate if there are any discrepancies or issues during pickup with a check mark and a description written on the back of the *ADPH Courier Log*.
 - CHD staff should check periodically to ensure the courier is filling out the courier section of this document.

References

Association of Public Health Laboratories. (2021, 07 14). *QSA-2021-Pack-Ship-Guidance-Biological-Substances-Job-Aid.pdf*.

Retrieved from Association of Public Health Laboratories:

<https://www.aphl.org/aboutAPHL/publications/Documents/QSA-2021-Pack-Ship-Guidance-Biological-Substances-Job-Aid.pdf>

Centers for Disease Control and Prevention. (2022, 04 25). *Specimen Storage and Shipping Guidance*. Retrieved from Centers for Disease Control and Prevention: <https://www.cdc.gov/laboratory/specimen-submission/pdf/Specimen-Packing-and-Shipping-Guidance-Infectious-Diseases-Laboratories.pdf>