



Safety Instruction

Shipping Potentially Infectious Samples

General

For shipping purposes, **biological substances** are any human or animal material including, but not limited to: excreta, secretions, blood and its components, tissue and tissue fluids, which are being transported for diagnostic or investigational purposes (Excludes live infected animals.)

- Active or inactive biological cultures, stocks, slants, or stabs.
- Blood and fluid samples.
- DNA or Recombinant DNA.
- Tissue samples.
- Cells.
- Some plant pathogens or samples may be upgraded to Biological Substance Category B or Infectious Substances depending on the risk associated with the pathogen or sample – even though not specifically covered by these regulations.



Category A Infectious Substances must be shipped as Infectious Substance to Humans or Animals. See a posted Category A substances list at [here](#). Contact EH&S for Category A shipping.

Shipping Requirements

Biological Substances Category B must be packed using the triple packaging system consisting of:

- Leak-proof primary receptacles.
- Leak-proof secondary packaging with sufficient liquid and shock-absorbing material between the primary receptacles and the secondary packaging, and the secondary packaging.
- An outer package clearly marked with the “Biological Substance Category B” and “UN3373” labels.



**BIOLOGICAL SUBSTANCE
CATEGORY B**

- Contents of outer package must not exceed 4L or 4kg, and each inner container must not exceed 1L.
- If an Air Waybill is used, the “Nature and Quantity of Goods” box must show the text “UN3373”, “Biological Substance Category B”, and number of packages.
- An itemized list of contents between secondary package and outer package (a Shipper’s Declaration for Dangerous Goods is not required).

Exempt Animal or Human Specimen

If a specimen has a minimal likelihood that pathogens are present, then the sample may be labeled as “**Exempt Animal Specimen**” or “**Exempt Human Specimen**.” This determination should be based on the known medical history, symptoms, and the individual circumstance of the source human or animal and endemic local conditions. EH&S can help with determination.

Contact EHS:
ehs@oregonstate.edu
ehs.oregonstate.edu
541 • 737 • 2273

Exempt packaging requirement:

- A leak-proof primary receptacle(s);
- A leak-proof secondary packaging; and
- An outer packaging adequate for its capacity, mass and intended use, and with at least one surface at least 10cm x 10cm.
- Outer package contains sufficient absorbent material to contain any leakage.
- Package marked “Exempt Animal Specimen” or “Exempt Human Specimen”

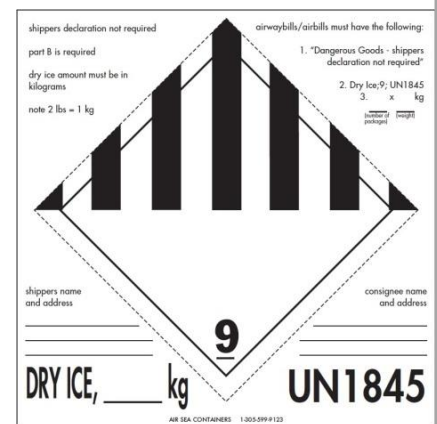
Non-infectious Animal Specimens in Preservative

The preservative, such as formaldehyde or alcohol, may be considered a hazardous material, but these items can be readily shipped if prepared according to IATA Special Provision A180. See instructions at: <http://oregonstate.edu/ehs/iata-a180>.

Shipping on Dry Ice

When shipping biological materials by air on Dry Ice, remember the following:

- Place Dry Ice outside the biological material’s secondary packaging or, alternatively, in an over-pack. Styrofoam coolers must be shipped inside a cardboard box.
- Use packaging that is designed and constructed to permit the release of carbon dioxide gas and to prevent a build-up of pressure that could rupture the packaging. Do not seal the edges of the package with tape!
- Label the over-pack with the Class 9 Dangerous Goods label, and also mark the package with “Dry Ice UN 1845” and the weight of the Dry Ice in kilograms.
- If Dry Ice is used for the shipment of a biological substance it does not have to be declared on a Declaration of Dangerous Goods form, but should be noted on the Air Waybill (there is usually a check box for this purpose).
- If Dry Ice is used for the shipment of infectious substances, it should be declared on the Declaration of Dangerous Goods form along with the infectious substance, and used with appropriate DOT approved packaging.
- Other dangerous goods rules may apply in some cases, such as shipping samples fixed in ethanol.



Resources

Importation of Agents Infectious to Humans Permits to import from foreign countries required through the Centers for Disease Control (CDC). <http://www.cdc.gov/od/eaipp/>

Export of Infectious Materials Export of such materials is regulated through the U.S. Department of Commerce. www.commerce.gov

Import or Interstate Shipment of Materials Infectious to Animals Permits to import or transfer animals or animal-derived materials through the USDA’s Animal and Plant Health Inspection Service (APHIS). www.aphis.usda.gov/animal_health/permits

Appendix B: Basis for the Classification of Biohazardous Agents by Risk Group (RG)
http://oba.od.nih.gov/oba/rac/Guidelines/appendix_B.htm

FedEx Pointers on Shipping Biological Samples <http://images.fedex.com/downloads/shared/packagingtips/pointers.pdf>

For assistance with shipping biological samples, contact EH&S at 541-737-2273