



Guidance Document: Transport of Biological Materials, Infectious Substances and Dry Ice

This guidance document has been developed in collaboration with MIT, the Ragon Institute, the Whitehead Institute, Harvard University and the Broad Institute to align expectations for researchers moving between these institutions.

Transporting materials considered to be dangerous goods between the institutions listed above (and within campuses with multiple buildings separated by public roadways or spaces) by any method must be done in compliance with US Department of Transportation (DOT) requirements.

What types of materials must be transported in compliance with DOT requirements?

- Anything transported on dry ice
- Genetically Modified Micro-Organisms
- Exempt Human or Animal Specimens
- Biological Substance Category B
- Infectious Substance Category A – must be shipped via carrier such as Fedex

What types of materials are not required to be transported in compliance with DOT requirements?

- Non-hazardous material (e.g. non-infectious nucleic acids, proteins) on wet ice or ice packs or at ambient temperature

Follow the steps below to ensure compliant and safe transport.

Refer to your specific institution's policies for more detailed requirements.

For the Shipper/Transporter

1. For materials that will be transported by vehicle, make sure you have recently taken IATA/DOT training (within 2 years). If you do not have current training, have a trained colleague package the material or [contact EH&S](#) for information on how to obtain training. You cannot package or transport if you do not have current training.
2. Package and label the materials to meet IATA/DOT requirements.
3. Understand that dry ice is considered a dangerous good and even if the other materials you are transporting are not hazardous, the dry ice triggers the requirement for IATA/DOT training and compliance with packaging and labeling requirements.
4. Confirm with the recipient that they are approved by their Institutional Biosafety Committee (IBC) to use the material. At Harvard, the Committee on Microbiological Safety (COMS) is the IBC.
5. **NEVER put dry ice in a completely sealed container.** It will over-pressurize and violently release and can cause serious injury and property damage.
6. Use of public transportation and Uber/Lyft type services to transport these types of packages is prohibited. Use of personal vehicles and bicycles is discouraged, but may be permissible in some circumstances with specific approval from EH&S. Metro Cab of Boston will transport materials if properly packaged, although individual cab drivers have the right to refuse to transport any package. If using a cab, you should ride with the package. Medical couriers may also be an acceptable option for some properly packaged materials.



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- If delivering materials to a location where you don't have access into the lab, make sure that the recipient plans to meet you in a public location such as the building lobby or to escort you into their building. Do not leave the package with building security or reception, and do not enter a building on someone else's badge access (piggybacking).
- To exit your building with the package, follow your institution's policy on transport within the building, which may require you to travel via a specific route, for example by service or freight elevator rather than passenger elevator.

For the Recipient

- Ensure that you have arranged an appropriate time and location for receipt of the package from the sender.
- Check the outside of the box to verify that the material is properly packaged and labeled before you accept it. For example, check that the package has the appropriate labels, i.e. Class 9, dry ice, UN1845 and kg of dry ice; verify that the outer packaging does not appear to have any significant wet areas that might signify a leaky inner package.
- If the material is not properly packaged and labeled, refuse the shipment or move the package to the nearest laboratory. Open all such packages in a biological safety cabinet (BSC) or fume hood wearing full personal protective equipment including lab coat, gloves and safety glasses. If you discover upon opening the package in the lab that there is an issue such as dry ice in a closed container, evacuate the lab, and call your EH&S Department/Office.

The following table summarizes options for transport of biological materials.

Type of Shipment	Non-hazardous material on wet ice or ice packs	Non-hazardous biological on dry ice Genetically Modified Micro-Organisms Exempt Patient or Animal Specimen Category B Biological Substance
Considered DOT-Hazmat by ground?	No	Yes
Required Training	No IATA / DOT training required	Shipper/transporter must be IATA/DOT trained if a vehicle is used to transport the material.
Packing/Labeling	To and From information	Fully DOT Compliant packing/labeled required if transported via vehicle
University Vehicle	Permissible	Permissible ²
Local shuttles: (e.g. MASCO Shuttle, Harvard Shuttles)	No	No
Personal vehicle or bicycle	Yes	Not recommended
Taxi Cab	Yes ¹	Yes ¹
Medical Courier	Yes ³	Yes ³
Mass Transit, i.e. MBTA trains, busses, commuter rail	No	No
Walking	Yes	Yes
Car for hire, i.e. UBER, Lyft	No	No



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1. Call ahead to ensure company will take biomedical packages/dry ice. Metro Cab is one suggested taxi company. Individual drivers have the right to refuse any package. You may be required to ride with your package.
2. Avoid transporting dry ice packages in a poorly ventilated vehicle due to suffocation hazard. Transporting biological shipments may null and/or void your auto insurance in case of an accident.
3. Examples of couriers = Deliv, Skycom. Your institution may already have an agreement with a courier service.

If you are unsure about any aspect of shipping biological materials (hazardous or non-hazardous) contact EH&S at EHS_ResearchTransport@harvard.edu