



SARS-CoV-2 Packaging and Shipping Information

- **Anyone offering SARS-CoV-2 samples must be trained to pack and ship according to the regulations and in a manner that corresponds to their function-specific responsibilities.**
- In the US, per CDC and DOT, “Pack and ship suspected or confirmed SARS-CoV-2 patient specimens, cultures or isolates as UN 3373 Biological Substance, Category B”
- Internationally, the *WHO Laboratory Biosafety Guidance related to Coronavirus disease (COVID-19)* Interim Guidance 13 May 2020 includes the following: “Patient specimens from suspected or confirmed cases should be transported as UN3373, “Biological Substance, Category B”, when they are transported for diagnostic or investigational purposes. Viral cultures or isolates should be transported as Category A, UN2814, “infectious substance, affecting humans”.”
- Pack and ship all specimens and cultures in accordance with the current edition of the [International Air Transport Association \(IATA\) Dangerous Goods Regulation](#).
- Note: international shipment of SARS-CoV-2 virus and clinical samples may require an import or export permit “if relevant”⁶.
- The OSHA Bloodborne Pathogens Standard applies when handling/shipping human sourced materials.
- Note: Any courier can refuse to transport a package that they feel does not meet their packaging standards for shipment of biological substances or patient samples; therefore, it is advisable to review packaging and labeling with the vendor first.

Useful links:

1. CDC Training for transporting and shipping hazardous materials [informational only]: <https://www.cdc.gov/labtraining/docs/training/288-011-16-Packaging-Shipping-Division-6.2-Materials-NO-CE.pdf>
2. CDC Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19): <https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html>
3. US Department of Transportation **Packaging and Shipping SARS CoV 2 Specimens, Cultures, Isolates and Waste:** <https://www.phmsa.dot.gov/transporting-infectious-substances/packaging-and-shipping-sars-cov-2-specimens-cultures-isolates-and-waste>

4. WHO Guidance on regulations for the transport of infectious substances 2019– 2020 Applicable January 1, 2019: <https://apps.who.int/iris/bitstream/handle/10665/325884/WHO-WHE-CPI-2019.20-eng.pdf?ua=1>
5. WHO: Laboratory biosafety guidance related to the novel coronavirus (2019-nCoV): [https://www.who.int/publications-detail/laboratory-biosafety-guidance-related-to-coronavirus-disease-\(covid-19\)](https://www.who.int/publications-detail/laboratory-biosafety-guidance-related-to-coronavirus-disease-(covid-19))
6. WHO: Guidance for laboratories shipping specimens to WHO reference laboratories that provide confirmatory testing for COVID-19 virus (31 March 2020): https://apps.who.int/iris/bitstream/handle/10665/331639/WHO-2019-nCoV-laboratory_shipment-2020.3-eng.pdf
7. IATA, Novel Coronavirus (Covid-19) Dangerous goods (including alcohol based sanitizers) guidance for Operators – 16 April 2020: <https://www.iata.org/contentassets/5b7bfb49568442049a384623cefb3cea/covid-19-guidance.pdf>
8. Saf-T-Pak Packing Checklist (see Category B): <https://www.cdc.gov/coronavirus/mers/downloads/lab/Saf-T-Pak-packaging-checklist.pdf>
9. IATA Dangerous Goods Packing Instruction 650 for UN3373: <https://www.iata.org/contentassets/b08040a138dc4442a4f066e6fb99fe2a/dgr-61-en-pi650.pdf>
10. IATA Dangerous Goods Packing Instruction 620 for UN2814: https://www.who.int/csr/resources/publications/biosafety/WHO_CDS_EPR_2007_2cc.pdf Annex 3
11. Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons for Coronavirus Disease 2019 (COVID-19) – Shipping: <https://www.cdc.gov/coronavirus/2019-ncov/lab/guidelines-clinical-specimens.html>
12. Guidelines for Submitting Specimens to CDC, containing instructions for completing a specimen submission form (CDC Form 50.34), specimen collection, storage, and shipping to CDC laboratories: <https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID-19-Specimen-Submission-Guidance.pdf>
13. CDC Submission Form: <https://www.cdc.gov/laboratory/specimen-submission/form.html>
14. CDC, UN 3373 Category B schematic for packaging: <https://www.cdc.gov/coronavirus/mers/downloads/lab/UN3373-packaging-schema.pdf>
15. Labels for UN 3373
 - When using cold pack (CDC) <https://www.cdc.gov/coronavirus/mers/downloads/lab/UN3373-label-cold-pack.pdf>
 - Include the name and telephone number of the person who will be available during normal business hours who knows the content of the shipment (can be someone at CDC). Place the label on one side of the box and cover the label completely with clear tape (do not tape just the edges of the label).

- When using dry ice (CDC)
 - <https://www.cdc.gov/coronavirus/mers/downloads/lab/UN3373-label-dry-ice.pdf>
 - Include the name and telephone number of the person who will be available during normal business hours who knows the content of the shipment (can be someone at CDC). Place the label on one side of the box and cover the label completely with clear tape (do not tape just the edges of the label).

16. CDC Shipping and Packaging FAQs: <https://www.cdc.gov/coronavirus/2019-ncov/lab/biosafety-faqs.html>

17. CDC: Import Permit Program (IPP), Frequently Asked Questions: <https://www.cdc.gov/cpr/ipp/faq.htm>

18. US Dept of Transportation information on Materials of Trade: <https://www.phmsa.dot.gov/training/hazmat/what-are-materials-trade>

Packing and Shipping FAQs

1. Can I use Category A packaging to ship Category B samples?¹

Since Category A packaging exceeds the packaging requirements for Category B infectious substances, it can be used to transport Category B infectious substances. However, you must label it correctly according to the Category B contents.

2. What are Materials of Trade (MOT) samples?

The Materials of Trade exemption from DOT applies to transporting hazardous materials in direct support of a principal business that is other than transportation by motor vehicle. Materials of trade **excludes** your common carriers. You are **not** able to send hazardous materials and use a MOTs exception if you are using some of the common carriers throughout the United States. Examples of using the MOT exemption include carrying extra containers of gasoline in a lawn service truck or carrying diagnostic samples. Other examples can be found at https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/MOTS%20brochure%202007_10_02.pdf

Here are some considerations when using the MOT exemption:

- Understand the requirements for packaging and marking
- Understand the regulations that apply to MOTs (found in 49 CFR Section 173.6.)
- Understand the Quantity Limits for Hazardous Materials being Transported as MOTs
- Understand what hazardous materials qualify as MOTs [DOT class/Division]

3. What are the regulations for sending samples by taxi?

Both those who offer and those who transport hazardous materials are required to be trained according to the hazardous materials they offer. Thus, if you are offering a hazardous material for transport by taxi/cab, you must let the driver/cab company know that you are offering a hazardous material. If the taxi/cab company chooses to transport Category A or Category B hazardous materials, they must assure their employees are trained appropriately for the

hazardous material being transported. In addition to the appropriate hazardous materials training, they would also be responsible for following OSHA regulations, including having bloodborne pathogen training if transporting specimens containing or contaminated with human blood.¹

Taxi cabs can be used for transport of non-hazardous material on wet ice or ice packs or non-hazardous biologicals on dry ice, Genetically Modified Micro-Organisms, Exempt Patient or Animal Specimens, or Category B Biological Substance. Call ahead to ensure company will take biomedical packages/dry ice. Individual drivers have the right to refuse any package. You may be required to ride with your package.²

1. From the APHL List Serve. Patricia Payne PhD, MT(ASCP), JBM Associates, Inc., IATA Strategic Partner, pat@jbmpayne.com.
2. Harvard University Environmental Health and Safety: https://www.ehs.harvard.edu/sites/ehs.harvard.edu/files/2020_0127%20Local%20Bio%20Transport%20Guidance.pdf

4. What are Exempt Human Specimens?

According to IATA 3.6.2.2.3, the "Exempt Human Specimen" category relates to patient specimens for which there is minimal likelihood that pathogens are present and are not subject to the Dangerous Goods Regulations if the specimen is transported in Packaging for Exempt Human Specimen.³

Examples of specimens which may be transported as a patient specimen for which there is a minimal likelihood that pathogens are present include blood or urine tests to monitor cholesterol levels, blood glucose levels, hormone levels, or prostate specific antigens (PSA); tests required to monitor organ function such as heart, liver or kidney function for humans or animals with non-infectious diseases, or therapeutic drug monitoring; tests conducted for insurance or employment purposes and are intended to determine the presence of drugs or alcohol; pregnancy tests; biopsies to detect cancer; and antibody detection in humans or animals. DNA, saliva, toenails, and dust are always classified as Human Exempt Specimens.⁴

3. <https://www.ups.com/us/en/help-center/packaging-and-supplies/special-care-shipments/hazardous-materials/biological-substances.page>
4. Excerpt from the National Institute of Environmental Health Sciences- laboratory Shipping Protocols: <https://brd.nci.nih.gov/brd/sop/download-pdf/944>