



**World Health
Organization**



Module VII
Frequently Asked Questions and Tools

August 2011



**World Health
Organization**

Frequently Asked Questions and Tools

Page 2 of 18

Frequently Asked Questions

Frequently Asked Questions

1. Where do you purchase shipping packages?
2. How do you ship with refrigerated liquid nitrogen?
3. Can you ship multiple samples assigned to different categories in the same package?
4. Can you prepare a package without gloves?
5. What are the limitations for shipping infectious substances?
6. Can someone send infectious substances through the mail?
7. How would someone reuse a package?
8. How does someone send an empty package?
9. How much absorbent material is needed in the secondary container?
10. Are there any variations to the regulations?



1. Purchasing Shipping Packages

- ⚠ Packages can be purchased from courier service providers or from other commercial providers
- ⚠ An internet search using a suitable national or international search engine usually provides appropriate information. Search phrases such as “UN Packaging” and “UN Infectious Substance Packaging” produce extensive results
- ⚠ Carriers and forwarding agents should also be able to provide details of local suppliers or companies which can provide such information and packaging supplies



World Health
Organization

2. Shipping with Refrigerated Liquid Nitrogen

- ☣ Samples which need to be kept frozen at very low temperature can be shipped using refrigerated liquid nitrogen
- ☣ When shipping with liquid nitrogen, "dry shippers" can be used
- ☣ Correctly prepared "dry shippers" do not contain free liquid nitrogen
- ☣ While liquid nitrogen is a regulated dangerous good, a properly prepared "dry shipper" is not
- ☣ When shipping with "dry shippers", the dangerous goods label for class 2 (non-flammable, non-toxic gases) is NOT required
- ☣ Shippers must properly mark and label the outside of dry shippers packages containing infectious substances
- ☣ Appropriate documentation should discuss the presence of infectious substances (for Category A this information will be included in the Dangerous Goods Declaration. For Category B and Exempt packages this information should be provided on the Air Waybill)

3. Multiple Samples: Different Categories

- ☠ Category A samples can be shipped in the same package as Category B or Exempt samples as long the packaging meets the most stringent (among the samples present) shipping requirements
- ☠ Other dangerous goods must not be packed in the same packaging as Division 6.2 Infectious Substances unless they are necessary for maintaining the viability, stabilizing or preventing the degradation of infectious substances
- ☠ A quantity of 30ml or less of dangerous goods included in Classes 3, 8, or 9 may be packed in each primary container with infectious substances. When these small quantities of dangerous goods are packed with infectious substances, no other requirements for substances of these classes need to be met

4. Preparing Package – No Gloves

- ☣ It is recommended to handle samples with gloves
- ☣ It is recommended to develop and monitor medical surveillance programmes among individuals handling samples
- ☣ If gloves are not available, individuals should consider the following recommendations:
 - ☣ Disinfect primary container surface
 - ☣ Develop and ensure a hand washing standard operating procedure (SOP) for individuals handling primary containers with no gloves
 - ☣ Provide tongs for individuals to handle primary containers
 - ☣ Train staff on processes which minimize risk of exposure

5. Shipping Infectious Substances - Limitations

- ⚠ Every infectious substance can be shipped
- ⚠ All human and animal specimens should be considered potentially infectious unless otherwise specified by a medical professional
- ⚠ Unless an infectious substance cannot be consigned by any other means, live animals must not be transported
- ⚠ Infectious substances must not be hand carried or carried in checked-in baggage during air travel
- ⚠ Infectious substances must not be placed in diplomatic pouches

6. Shipping Infectious Substances by Mail

- ⚠ Not all countries allow shipments of infectious substances by mail
- ⚠ Contact local postal authorities to determine if the countries you are shipping from, through, and to, allow infectious substances to be shipped by mail
- ⚠ Shippers must follow postal requirements when shipping infectious substances by mail

7. Reusing Packages

- ⚠ Shipping packages can be reused
- ⚠ If the shipper plans on reusing the package – it must be appropriately disinfected
- ⚠ Before reusing the package, the shipper must make sure all markings and labels reflect the substance actually being shipped
- ⚠ If the shipper plans on shipping an empty package, all non applicable markings and labels must be removed or covered



8. Shipping Empty Packages

- ④ Empty packages can be shipped
- ④ If the shipper plans on shipping an empty package, all non applicable markings and labels must be removed or covered



9. Absorbent Material

- ⚠ Absorbent material should always be placed inside the secondary container (between the primary and secondary containers)
- ⚠ There must be enough absorbent material to absorb the entire contents of the primary container
- ⚠ Absorbent material must protect the cushioning material and outer packaging if there is a leak from the primary container
- ⚠ Liquids from primary containers should never leak through the secondary or outer container

10. State and Operator Variations

- ⚠ States (countries) and operators (e.g. airlines) may have specified variations to existing regulations
- ⚠ These variations may restrict or impose additional requirements for the transport of infectious substances and other dangerous goods
- ⚠ Shippers are advised to contact their carrier prior to shipment to ensure all State and operator requirements are met prior to shipping



**World Health
Organization**

Tools



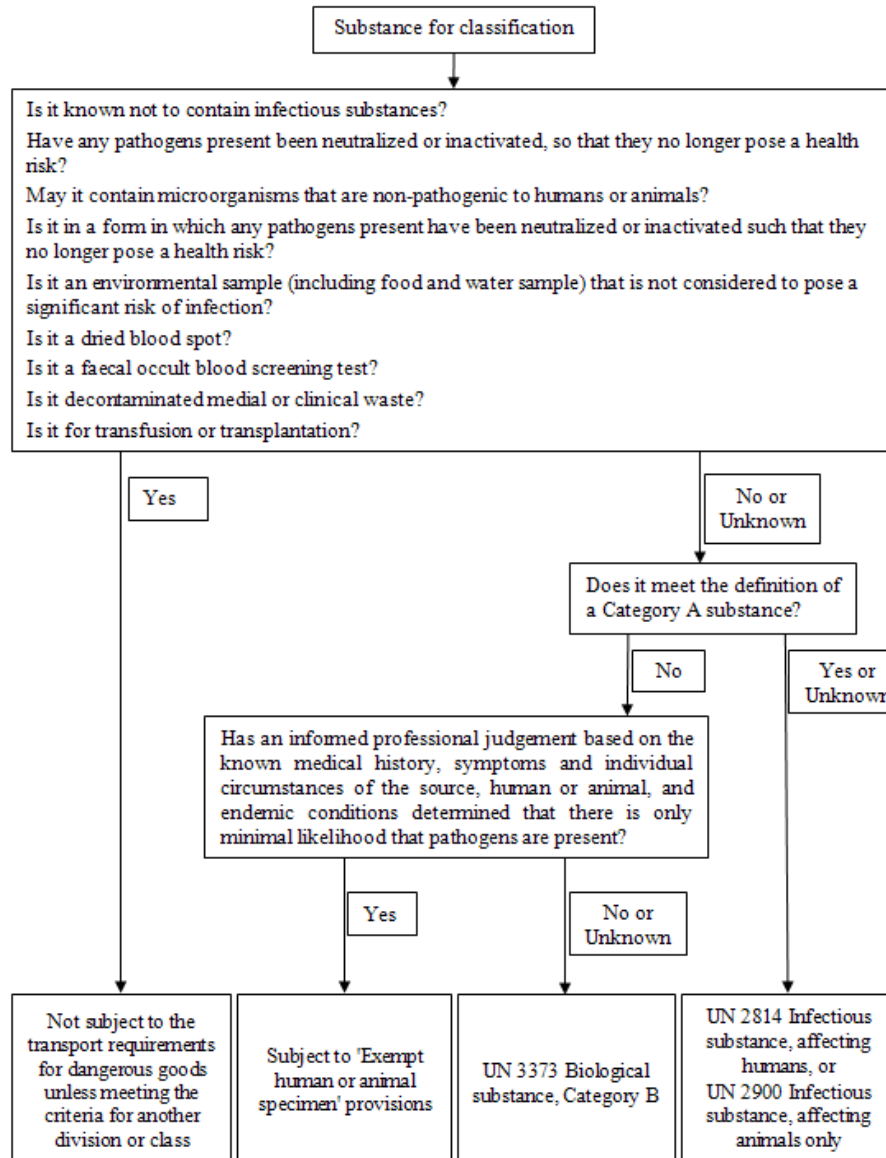
World Health
Organization

Tools

- 🔗 [Classification Flowchart](#)
- 🔗 [Differences in Packaging Requirements \(PI620, PI650, Exempt\)](#)



Flowchart for the classification of infectious substances and patient specimens



Differences in Packaging Requirements

Category A (PI620) UN 2814 – Infectious Substance affecting Humans UN 2900 – Infectious Substance affecting Animals Only	Category B (PI650) UN 3373 – Biological Substance, Category B	Exempt Human/Animal Specimen Exempt Human Specimen Exempt Animal Specimen
Primary container is leakproof	Primary container is leakproof	Primary container is leakproof
Secondary container is leakproof	Secondary container is leakproof	Secondary container is leakproof
Outer container is rigid	Either secondary or outer container must be rigid*	Outer packaging must be of adequate strength
Pressure tested at 95 kPa	Pressure tested at 95 kPa	-----
Drop tested from 9 m	Drop tested from 1.2 m	-----
Stack tested	-----	-----
UN symbol must be on package	-----	-----
Puncture tested at 7 kg	-----	-----
Shipper must be trained	-----	-----

* If shipment is transported by air, the outer container must be rigid.



**World Health
Organization**

Questions and comments