

Biological Substances Category B- IATA Packing Instructions P650 Job Aid

Applicability

This document applies to all personnel of AHS Laboratory Services, the Lamont Health Centre and laboratories administered by Covenant Health.

Purpose

This document provides instruction for packaging infectious substances in Category B and designated as UN 3373.

Background

Patient specimens are classified as **Biological Substances, Category B** when:

- The specimen is from a patient who is known to have an infectious disease.
- The pathogen (bacteria, virus, parasite, or fungi) involved is a Category B Infectious Substance and is or may be present in the specimen.
- The patient must be diagnosed with an infectious disease or there must be some indication that the physician suspects that the patient may have a specific infectious disease. This information may come directly from the physician, another healthcare worker, or it may be indicated on the requisition.

Refer to Appendix C in *Classification of Infectious Substances* or the following link for a complete list of Category B substances.

Materials

Transport Canada Approved TC 125-1B or ICAO/IATA PI650 packaging requirements

Biological Substances- Category B Supplies

- Exempt Human Specimen Box 4x4x9
- Exempt Human Specimen Box 8x8x13
- Styrofoam Liner (8x8x13) for the Exempt Human specimen Box
- Leakproof Specimen Bags (i.e. ziploc or similar)
- Absorbent Pads
- Bubble Wrap
- Additional Pressure Vessels
- UN3373 Marking Label
- Refrigerant
- Site Specific return address labels

Guidelines

Category B Packaging Requirements

The basic triple packaging system is used with the following specifications:

- Inner packaging comprising a watertight (leak-proof) primary receptacle (i.e. specimen container):
 - Maximum quantity 1 litre (for liquids) or 1 kilogram (for solids)

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(Authorized individuals are: lab personnel designated in their zone/program or provincial role to produce print copies)

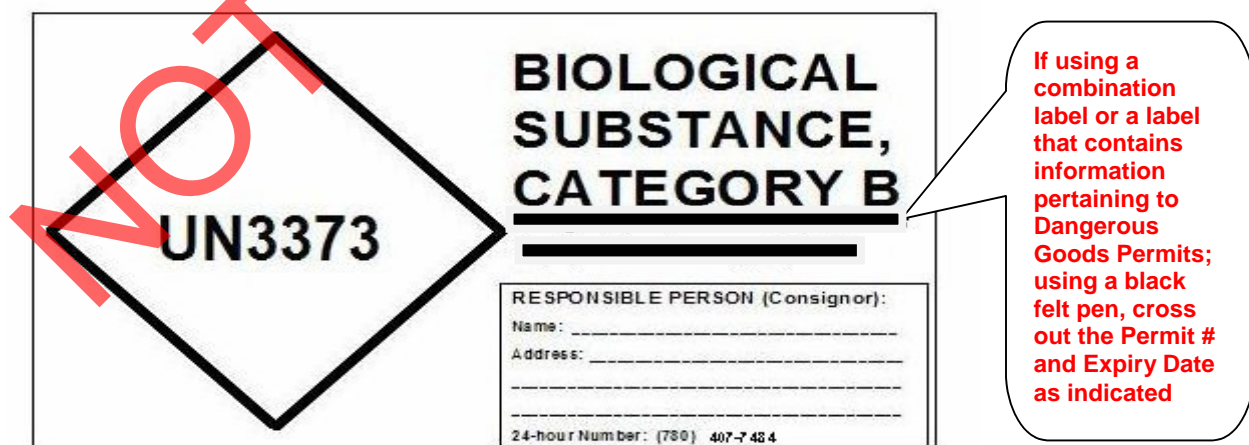
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- Glass and other fragile containers require padding or cushioning. Before placing these specimen containers in the sealable specimen bag, wrap them in cushioning material (i.e. bubble wrap, foam or paper towel).
- Primary receptacle or secondary packaging must withstand without leakage an internal pressure differential of 95 kPa in a range of -40°C to +55°C.
- The primary receptacle shall be packed in the secondary packaging in such a way that, under normal conditions of transport, they cannot break, be punctured, or leak their contents into the secondary packaging.
- Watertight (leak-proof) secondary Packaging:
 - Secondary packaging shall be secured in outer packaging with suitable cushioning material. Any leakage of the contents shall not compromise the integrity of the cushioning material of the outer package.
 - Other than for solid infectious substances, an absorbent material in sufficient quantity to absorb the entire contents is placed between the primary receptacle(s) and the secondary packaging;
 - Bags labeled 95 kPa by the manufacturer are acceptable secondary packaging.
- A rigid outer packaging of adequate strength for its capacity, mass and intended use:
 - The smallest external dimension shall be not less than 100 mm x 100 mm (4 inches x 4 inches).
 - Maximum quantity per outer packaging – 4 LX 4 L or 4 kg. This quantity excludes ice, dry ice or liquid nitrogen when used to keep specimens cold.
 - Either the secondary or outer package must be rigid.
- For substances shipped refrigerated or frozen (i.e. wet ice, pre-frozen packs, dry ice)
 - Dry Ice must be placed outside the secondary packaging(s) or in an overpack with one or more completed packagings. Interior support must be provided to secure the secondary packaging in the original position after the ice has dissipated. If dry ice is used the outer packaging must permit the release of carbon dioxide gas.
 - If wet ice is used the packaging must be leak-proof.
- Marking/Labeling:
 - The UN 3373 label (marking) shall be displayed on the external surface of the outer packaging on a background of a contrasting color and shall be clearly visible and legible. The width of the line shall be at least 2 mm, the letters and number shall be at least 6 mm high.



- The Exempt Human Specimen Box can be used, **however** the “UN3373 Marking Label” must **be placed to ensure the “Exempt Human Specimen”** statement is covered

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- When dry ice is used, the Class 9 marking shall be applied to the outermost packaging indicating Dry Ice, UN1845 and the weight of dry ice used.



- Shipper's name, address and telephone number
- Telephone Number of a responsible person, knowledgeable about the shipment.
- Receiver's name, address and telephone number.

Category B Labeling Requirements

- Label as Biological Substance, Category B

Documentation

- Dangerous goods documentation (including a shipper's declaration) is not required for Category B substances. The label serves as the required documentation.
- The following shipping documents are required:
 - For international shipments: a packing list/pro-forma invoice that includes the shipper's and the receiver's address, the number of packages, detail of contents, weight, value. A value of \$10.00 is claimed.
 - An import and/or export permit and/or declaration if required.
- An air waybill for air transport or equivalent documents for road, rail and sea journeys.

Handling Leaks During Transport

- If there is a leak during transport and the leak could endanger public safety, it must be reported to Transport Canada. Refer to *Response Procedure for Accidental Release of Infectious Substances* (at <http://204.244.183.163/labFrame.asp?DID=24574>) for further detail.

Reference

- Laboratory Services Provincial Health and Safety Manual Sources of Truth - <https://ahs.labqms.com/labFrame.asp?DID=25013&FLDVr=1376>

Related Documents

- Transportation of Dangerous Goods Policy - <https://ahs.labqms.com/labFrame.asp?DID=24570>
- Transportation of Dangerous Goods Regulations General Information - <https://ahs.labqms.com/labFrame.asp?DID=24581>
- Transportation of Dangerous Goods Class 6.2 and 9.0 - <https://ahs.labqms.com/labFrame.asp?DID=24580>
- Classification of Infectious Substances - <https://ahs.labqms.com/labFrame.asp?DID=24579>

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