Infectious Substance Packing and Shipping

Quick Reference Guide

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Basic Packing Checklist

✓ Sample container is closed securely

✓ Sufficient cushioning material and absorbent is present

✓ Secondary container secure within outer container

✓ Sample submission paperwork placed in outer container

✓ All necessary markings and labels on box (don’t forget dry ice or overpack if present)

✓ Itemized list of contents attached to secondary container or placed between secondary container and outer packaging

✓ Shipper’s Declaration completed (3 Copies, don’t forget dry ice or overpack if present) for all Category A Substances

✓ Air waybill completed

✓ Emergency contact information

✓ Recipient notified
**Infectious Substance Classification**

In order to determine whether a substance is Category A, B, or Exempt, answer the following:

- Is it known NOT to contain an infectious substance?
- Are any microorganisms present non-pathogenic to humans and animals?
- Have the pathogens present been neutralized or inactivated so they no longer pose a health risk?
- Is it an environmental sample (e.g. food or water) that is not considered to pose a significant health risk?
- Is it a dried blood spot or fecal occult blood card?
- Is it intended for transplant or transfusion?

*If the answer is*...........

**YES**

To **any** of these ?s

The substance in question isn't subject to regulations.

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**NO**

To **all** of these ?s

Then ask.....

Does it meet the definition of a Category A substance (i.e. is or suspected of being on the Category A table and/or in the designated form)?

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**YES**

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**NO**

- Is it a patient specimen unlikely to cause disease?
- Minimal likelihood that pathogens are present?

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Substance is a Category B infectious substance.

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Substance is a Category A Substance.

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Substance is an “Exempt human specimen” or not subject to regulations at all.

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**Packaging and labeling diagram**

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Exempt Human/Animal Specimen.

No packaging instructions
Packaging for Category A and B Infectious Substances

➢ Triple packaging required for both Category A and B
➢ Sample in watertight, leak-proof primary container
➢ Primary container placed in secondary container with cushioning and absorbent
➢ Third layer of packaging is rigid, outer box, and if used for Category A, must bear the UN Packaging symbol for Division 6.2 materials
Example Category B Packaging:

Source: Infectious Substance Shipping Guidelines, Ref No. 9052-11, IATA, 11th Edition

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Source: Infectious Substance Shipping Guidelines, Ref No. 9052-11, IATA, 11th Edition
**Example Category A Packaging:**

![Diagram of Category A Packaging](image)

- Watertight Primary Receptacle
- Glass, Metal, or Plastic
- Infectious Substance
- Absorbent Packing Material (for liquids)
- Cap
- Watertight Secondary Packaging
- Remixed List of Contents
- Rigid Outer Packaging
- Infectious Substance Label
- Proper Shipping Name and UN Number
- UN Package Certification Mark
- Cross Section of Packaging
- Waterproof Tape
- Closure must have a leakproof seal
- Infectious Substance
- Specimen ID Label
- Absorbent Material
- Shipper and Consignee Identification

**Note:**
1. The smallest external dimension of the outer packaging must not be less than 100 mm
2. The primary receptacle or the secondary packaging must be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 KPa

Infectious Substance Shipping Guidelines, Ref No. 9052-11, IATA, 11th Edition

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8.4.2 Sample Documentation and Labelling for a Shipment of Infectious Substances in Category A with Dry Ice

A way to show an infectious substance shipment packed together with dry ice inside a UN Class 6.2 specification package. Note that a "Q" value is not required, and the Air Waybill will require the statement as shown in 8.3.

Figure 8.4.2.A
Shipper's Declaration

<table>
<thead>
<tr>
<th>UN</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN2814</td>
<td>Infectious substance, affecting humans (Suspected category A infectious substance)</td>
<td>6.2</td>
</tr>
<tr>
<td>UN3345</td>
<td>Dry ice</td>
<td>9</td>
</tr>
</tbody>
</table>

All packed in one Fibreboard box.

Figure 8.4.2.B
Air Waybill

Handling Information

Dangerous Goods as per attached DGD

<table>
<thead>
<tr>
<th>No. of Pieces</th>
<th>Gross Weight</th>
<th>Rate Class</th>
<th>Commodity Item No</th>
<th>Chargeable Weight</th>
<th>Rate / Charge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>INFECTIOUS SUBSTANCE</td>
</tr>
</tbody>
</table>

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Checklist: Required Markings and Labels

Category B:
- Shipper name and address
- Consignee name and address
- Name and Phone of person responsible (24 hour)
- “Biological Substance, Category B”
- UN3373 diamond-on-point label, in contrasting color from box, must be placed near the “Biological Substance, Category B” mark
- Dry Ice label, if necessary
- Class 9 diamond-on-point, if necessary
- Orientation arrows
- Itemized list of contents (between secondary and outer packaging)
- Waybill required, must state “Biological Substance Category B, UN3373

Category A:
- Shipper name and address
- Consignee name and address
- Name and phone of person responsible (24 hour)
- UN Identifier
- Shipping name
- Quantity of contents
- Infectious Substance 6.2 diamond-on-point, must be placed adjacent to the UN Identifier and shipping name
- Dry ice label, if necessary
- Class 9 diamond-on-point, if necessary
- “Danger-Cargo Plane Only” label if over quantity limits
- Orientation arrows
- Itemized list of contents (between secondary and outer packaging)
- Waybill required
- Shippers declaration required

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# Filling out the Shipper’s Declaration

**Shipper**
Your full name, address, and phone

**Air Waybill No.**
Write the package tracking number

**Pages**
Usually 1 of 1

**Consignee**
Full name and address *(remember the US Mail is the only entity that can deliver to P.O. Boxes)*

**Transport Details**
Cross out non-applicable box *If sample is >50mL it must go on cargo aircraft only*

**Airport of Departure and**
If unknown, the air carrier can fill this out

**Shipment Type**
Cross out the non-applicable box

## DANGEROUS GOODS IDENTIFICATION

**UN or ID No.**
*i.e UN 2814, Dry Ice is UN 1845*

**Proper Shipping Name**
Write “Infectious Substance, Affecting Humans”. Underneath in parenthesis write name of organism, or if unknown, write “Suspected Category A Substance”. If Dry Ice is used, write “Dry Ice” as well.

**Class or Division**
Division is 6.2, Dry Ice is 9.

**Packing Group**
Use for Dry Ice only, III.

**Qty & Type of Packaging**
“___mL” and “All packed in one fiberboard box”. With Dry Ice, “___kg” and “Overpack Used” if applicable (kgs=lbs/2.2)

**Packing Instructions**
620 for infectious substances
954 for Dry Ice

**Additional Handling**
Provide 24 Hour emergency contact phone, Also FedEx exemption statement goes here

**Name/Title of Signatory**
Print your name, title

**Place & Date**
Your site name, city, state, and date of shipment

**Signature**
Your signature

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Must use FedEx approved software:
FX18 exemption no longer applies
Filling out the Air waybill:

**Category B UN3373, Exempt Human/Animal Specimens and Dry Ice UN1845**

<table>
<thead>
<tr>
<th>6 Special Handling and Delivery Signature Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATURDAY Delivery</td>
</tr>
<tr>
<td>No Signature Required</td>
</tr>
<tr>
<td>Direct Signature</td>
</tr>
<tr>
<td>Indirect Signature</td>
</tr>
</tbody>
</table>

**Does this shipment contain dangerous goods?**

- **No**
- **Yes**

**Category B and Exempt Shipments**

1. Complete the Dangerous Goods section by checking the “Yes Shippers Declaration not required” box.
2. Check the “Dry Ice” box if used with the **number of packages** x **quantity** in kg of dry ice that was used.
3. Check the “Cargo Aircraft Only” box if packaged according to cargo aircraft only specifications.

**Category A UN2814 and Dry Ice UN1845**

<table>
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<tr>
<td>SATURDAY Delivery</td>
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<tr>
<td>No Signature Required</td>
</tr>
<tr>
<td>Direct Signature</td>
</tr>
<tr>
<td>Indirect Signature</td>
</tr>
</tbody>
</table>

**Does this shipment contain dangerous goods?**

- **No**
- **Yes**

**Category A**

1. Complete the Dangerous Goods section by checking the “Yes As per attached Shipper’s Declaration” box.
2. Check the “Dry Ice” box if used with the **number of packages** x **quantity** in kg of dry ice that was used.
3. Check the “Cargo Aircraft Only” box if packaged according to cargo aircraft only specifications.
Summary of Shipping Infectious Substances and Dry Ice:

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Classification</th>
<th>UN/Id No</th>
<th>Shippers Declaration</th>
<th>IATA Packing Instructions</th>
<th>Passenger Aircraft MAX NET QNTY</th>
<th>Cargo Aircraft MAX NET QNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious substance affecting humans (Category A)</td>
<td>6.2</td>
<td>2814</td>
<td>Yes</td>
<td>620</td>
<td>50 ml/50 gm</td>
<td>4L/4Kg</td>
</tr>
<tr>
<td>Infectious substance affecting animals only (Category A)</td>
<td>6.2</td>
<td>2900</td>
<td>Yes</td>
<td>620</td>
<td>50 ml/50gm</td>
<td>4L/4Kg</td>
</tr>
<tr>
<td>Biological substance, Category B</td>
<td>6.2</td>
<td>3373</td>
<td>No</td>
<td>650</td>
<td>4L/4Kg</td>
<td>4L/4Kg</td>
</tr>
<tr>
<td>Genetically modified microorganisms</td>
<td>9</td>
<td>3245</td>
<td>Yes</td>
<td>959</td>
<td>No limit</td>
<td>No Limit</td>
</tr>
<tr>
<td>Dry Ice or Carbon Dioxide (solid)</td>
<td>9</td>
<td>1845</td>
<td>No</td>
<td>954</td>
<td>200 Kg</td>
<td>200 Kg</td>
</tr>
<tr>
<td>Medical/ Clinical Waste</td>
<td>6.2</td>
<td>3291</td>
<td>Yes</td>
<td>622</td>
<td>No limit</td>
<td>No Limit</td>
</tr>
</tbody>
</table>
References:


Source: Infectious Substance Shipping Guidelines, Ref No. 9052-11, IATA, 11th Edition