

Packaging and Shipping Evaluation Tool



Purpose

The purpose of this *Packaging & Shipping Evaluation Tool* is to provide a standardized resource for public health laboratories to assess shipments received. This tool is primarily intended to be used by LRN reference laboratories to assess the proper packaging and shipping of select agent rule-out samples sent from clinical sentinel laboratories and may also be utilized for general Category A and B packaging and shipment assessments for other samples received besides select agent rule-outs.

Instructions for Use

1. Use either the Category A or Category B checklist(s) below depending on the type of shipment(s) received to conduct the evaluation.
2. Use the labeled Dangerous Goods Shipper's Declaration Form ([Diagram 1](#)) to assist with Category A shipments as needed with the [Category A Comprehensive Evaluation Form](#).
3. Inspect the package upon receipt and mark each item accordingly with the evaluation checklist(s).
4. Use the completed form(s) to assist with any needed follow up with the shipping laboratory as needed.

Category A infectious material must be characterized as one of the following:

- UN 2814 Infectious Substances, Affecting Humans
- UN 2900 Infectious Substance, Affecting Animals
- Suspected Category A (suspected Category A, infectious substance)

Category A shipments must be triple packaged in a UN certified package with appropriate and accompanying documentation. Category A shipments must be compliant in accordance with the applicable and current IATA Dangerous Goods Requirements following Packing Instruction 620, if transported by air by an IATA member carrier (e.g., FedEx), and the U.S. DOT Hazardous Material Regulations as listed in Title 49 of the CFR, Parts 100 – 185 if transported by ground.

Category B biological material must be classified as:

- UN 3373 Biological Substance, Category B
 - Note: technical name of the organism not required to appear

Category B shipments must be triple packaged, and a UN certified package is not required. Category B shipments must be compliant in accordance with the applicable and current IATA Dangerous Goods Requirements following Packing Instruction 650, if transported by air by an IATA member carrier (e.g., FedEx), and the U.S. DOT Hazardous Material Regulations as listed in Title 49 of the CFR, Parts 100 – 185 if transported by ground.

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IATA and DOT Indicative Category A List

CATEGORY A PATHOGENS, INDICATIVE OF INFECTIOUS SUBSTANCES, AFFECTING HUMANS (UN2814) WHEN TRANSPORTED IN ANY FORM UNLESS OTHERWISE INDICATED:

| | |
|---|---|
| <i>Bacillus anthracis</i> (cultures only) | Junin virus |
| <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella suis</i> (cultures only) | Kyasanur Forest disease virus |
| <i>Burkholderia mallei</i> , <i>Burkholderia pseudomallei</i> (cultures only) | Lassa virus |
| <i>Chlamydia psittaci</i> avian strains (cultures only) | Machupo virus |
| <i>Clostridium botulinum</i> (cultures only) | Marburg virus |
| <i>Coccidioides immitis</i> (cultures only) | Monkeypox virus |
| <i>Coxiella burnetii</i> (cultures only) | <i>Mycobacterium tuberculosis</i> (cultures only) |
| Crimean-Congo hemorrhagic fever virus | Nipah virus |
| Dengue virus (cultures only) | Omsk hemorrhagic fever virus |
| Eastern equine encephalitis virus (cultures only) | Polio virus (cultures only) |
| Ebola virus | Rabies virus (cultures only) |
| <i>Escherichia coli</i> , verotoxigenic (cultures only) | <i>Rickettsia prowazekii</i> , <i>Rickettsia rickettsii</i> (cultures only) |
| Flexal virus | Rift Valley fever virus (cultures only) |
| <i>Francisella tularensis</i> (cultures only) | Russian spring-summer encephalitis virus (cultures only) |
| Guanarito virus | Sabia virus |
| Hantaan virus | <i>Shigella dysenteriae</i> type 1 (cultures only) |
| Hantavirus causing hemorrhagic fever with renal syndrome | Tick-borne encephalitis virus (cultures only) |
| Hendra virus | Variola virus |
| Hepatitis B virus (cultures only) | Venezuelan equine encephalitis virus (cultures only) |
| Herpes B virus (cultures only) | West Nile virus (cultures only) |
| Highly pathogenic avian influenza virus (cultures only) | Yellow fever virus (cultures only) |
| Human immunodeficiency virus (HIV) (cultures only) | <i>Yersinia pestis</i> (cultures only) |
| Japanese encephalitis virus (cultures only) | |

CATEGORY A PATHOGENS INDICATIVE OF INFECTIOUS SUBSTANCES, AFFECTING ANIMALS (UN2900) WHEN TRANSPORTED IN ANY FORM UNLESS OTHERWISE INDICATED:

| | |
|--|--|
| African swine fever virus (cultures only) | <i>Mycoplasma mycoides</i> – Contagious bovine pleuropneumonia |
| Avian paramyxovirus Type 1-Velogenic Newcastle disease virus (cultures only) | Peste des petits ruminants virus |
| Classical swine fever virus | Rinderpest virus |
| Foot and mouth disease virus | Sheep-pox virus |
| Goatpox virus | Swine vesicular disease virus |
| Lumpy skin disease virus | Vesicular stomatitis virus |

Note: This is an indicative list and not an all-inclusive list. New and emerging pathogens meeting the inclusion criteria, or organisms closely resembling the criteria of microorganisms on this list (e.g., Select Agents), and microorganisms for which there may be a professional doubt concerning pathogenic criteria should also be considered for inclusion and classified as a Category A microorganisms, or a Suspected Category A. This list is subject to change and has changed periodically. Please note that at times, the names of new and emerging pathogens may not always be included and published immediately on regulatory lists.

Shippers should also consult the HHS/USDA Select Biological Agents and Toxins list available at www.selectagents.gov for the shipment of any potential select agent organism or toxin. Confirmed Select Agents must always be shipped as Category A, and potential or suspect Select Agents as “Suspected Category A”. Always refer to public health authorities (e.g., CDC, WHO, or other state or local public health agencies) for guidance when transporting a new or emerging pathogen.

Category A, Infectious Substance – Quick Evaluation Form

| Shipping Laboratory: | | | | | | |
|--|--|--------------------------------|----|-----------------------|--------------------------------------|--|
| Shipped Date: | | | | Received Date: | | |
| Shipment Method (carrier or courier): | | | | | | |
| Organism(s) Shipped: | | | | | | |
| Was sample classified appropriately (Y/N)?: | | | | | | |
| Did shipment arrive satisfactorily (Y/N)?: | | | | | | |
| Item | Present / Included | Acceptable / Appropriate (Y/N) | | | Item(s) in Need of Follow Up / Notes | |
| | | Yes | No | N/A | | |
| Outer Container | | | | | | |
| 1 | UN certified package marking | | | | | |
| 2 | Total quantity of hazardous material listed in volume (mL) or weight (g) | | | | | |
| | <ul style="list-style-type: none"> • Cannot exceed 50mL or 50g if shipped in passenger aircraft • Cannot exceed 4L or 4kg if shipped in cargo aircraft | | | | | |
| 3 | Orientation marks (Up Arrows) on two opposite sides <ul style="list-style-type: none"> • If shipping liquids greater than 50mL by air | | | | | |
| 4 | Responsible Person listed | | | | | |
| 5 | Full name, complete address and telephone number of the shipper | | | | | |
| 6 | Full name, complete address and telephone number of the recipient | | | | | |
| 7 | Marked with the appropriate UN hazard identification number and proper shipping name: <ul style="list-style-type: none"> • UN 2814 Infectious Substances, Affecting Humans • UN 2900 Infectious Substance, Affecting Animals | | | | | |
| 8 | Class 6 label | | | | | |
| 9 | 24 Hour Emergency Contact listed <ul style="list-style-type: none"> • Required for air transport | | | | | |
| 10 | Dimension of outer package meets the minimum requirements for regulatory markings and FedEx label | | | | | |
| 11 | Dimensions of hazard labels meets the minimum requirements | | | | | |
| 12 | Irrelevant markings or labels covered or removed | | | | | |
| 13 | Packaging system clean and undamaged | | | | | |

| Item | | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes |
|------------------------------|---|--------------------|----|-----|--------------------------------|--------------------------------------|
| | | Yes | No | N/A | | |
| 14 | Shipping papers, dangerous goods declaration or airway bill in adhesive plastic sleeve on top of box (can be on the side as long as no pertinent markings are covered) | | | | | |
| Secondary Container | | | | | | |
| 15 | Sealed and leak proof | | | | | |
| 16 | Primary OR secondary container is pressure resistant (95kPa compatible) • Required if transported by air | | | | | |
| 17 | Biohazard symbol present | | | | | |
| 18 | Itemized list of contents (e.g., test request form) located outside the secondary container | | | | | |
| 19 | Sufficient absorbent material for entire hazardous quantity included within secondary container | | | | | |
| 20 | (Optional) Additional cushioning material placed between primary and secondary as needed, or between secondary and outer container | | | | | |
| Primary Container | | | | | | |
| 21 | Sealed and leak proof | | | | | |
| 22 | Primary OR secondary container is pressure resistant (95kPa compatible) Required if transported by air | | | | | |
| 23 | Contains appropriate specimen/material identifying information such as a patient identification number | | | | | |
| 24 | Sufficient absorbent material present for entire contents of hazardous material and type (liquid or solid) | | | | | |
| 25 | Wrapped in cushioning material as needed to provide structural integrity support. If multiple primary containers are included, individually wrap each one. Note: Absorbent material can also be used as cushioning material. | | | | | |
| Dry Ice (If Included) | | | | | | |
| 26 | Properly ventilated outer package | | | | | |
| 27 | Net quantity of dry ice included listed on outer package (e.g., 3 kg) | | | | | |
| 28 | Marked with dry ice hazard identification number UN 1845 | | | | | |
| 29 | Miscellaneous Hazard Class 9 label | | | | | |
| 30 | Dry ice information listed correctly on Dangerous Goods Shipper's Declaration | | | | | |
| 31 | Sufficient amount included | | | | | |

| Item | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes |
|--|--|----|-----|--------------------------------|--------------------------------------|
| | Yes | No | N/A | | |
| Overpack (If Used) | | | | | |
| 32 | Overpack label on outer box | | | | |
| 33 | Inner packages are each properly packed and labeled | | | | |
| 34 | Outermost packaging labeled with the highest hazard level of the inner contents | | | | |
| 35 | Quantity of total included hazardous contents listed on outer packaging | | | | |
| 36 | "Overpack" listed on Dangerous Goods Shipper's Declaration | | | | |
| Other | | | | | |
| 37 | Multiple signed copies (at least 3) of Shipper's Declaration included | | | | |
| 38 | Any permit(s) that may be required | | | | |
| 39 | Any chain of custody form that may be required | | | | |
| 40 | A completed Form 2 for any confirmed select agent shipment | | | | |
| 41 | Is the box insulated if it is to contain refrigerants? | | | | |
| 42 | Is the package prepared and closed according to the manufacturer's packaging instructions? | | | | |
| Item(s) in Need of Follow Up or Other Notes (Include any photos of actual shipment received that may assist with follow up) | | | | | |

Evaluated By: _____

Date: _____

Diagram 1: Numbered Dangerous Goods Shipper's Declaration Form

SHIPPER'S DECLARATION FOR DANGEROUS GOODS (Provide at least three copies to the airline.)

Shipper **1** Air Waybill No. **3**
 Page of Pages **4**
 Shipper's Reference Number **5**

Consignee **2**

This space will have variable content depending on the carrier and method used to create this form.

Two completed and signed copies of this Declaration must be handed to the operator

WARNING
 Failure to comply with all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

TRANSPORT DETAILS
 This shipment is within the limitations prescribed for: (delete non applicable)
 PASSENGER AND CARGO AIRCRAFT CARGO AIRCRAFT ONLY
 Airport of Departure **7**
 Airport of Destination: Shipment type: (delete non-applicable) NON-RADIOACTIVE RADIOACTIVE **8**

NATURE AND QUANTITY OF DANGEROUS GOODS

| Dangerous Goods Identification | | | | | | |
|--------------------------------|----------------------|-------------------------------------|-----------------|--------------------------------|---------------|---------------|
| UN or ID No. | Proper Shipping Name | Class or Division (Subsidiary Risk) | Pack- ing Group | Quantity and type of packaging | Packing Inst. | Authorization |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | | | 17 | | |

18 Additional Handling Information

Emergency Telephone Number: **19**

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations. I declare that all of the applicable air transport requirements have been met. **20**

Name/Title of Signatory **20**
 Place and Date **21**
 Signature (see warning above) **22**

Emergency Telephone Number

FOR RADIOACTIVE MATERIAL SHIPMENT ACCEPTABLE FOR PASSENGER AIRCRAFT, THE SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN OR INCIDENT TO RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT. ADR EUROPEAN TRANSPORT STATEMENT: CARRIAGE IN ACCORDANCE WITH 1.1.4.2.1

Note: There are several variations of the Dangerous Good Shipper's Declaration Form depending on carrier.



Category A, Infectious Substance – Comprehensive Evaluation Form


| | |
|--|-----------------------|
| Shipping Laboratory: | |
| Shipped Date: | Received Date: |
| Shipment Method (carrier or courier): | |
| Organism(s) Shipped: | |
| Was sample classified appropriately (Y/N)?: | |
| Did shipment arrive undamaged (Y/N)?: | |

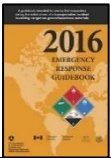





Documentation








(The numbered items in **yellow** boxes correspond to Diagram 1)



Notes: * = Required only for Dangerous Goods Shipper's Declaration form. A Dangerous Goods Shipper's Declaration Form is required by IATA/ICAO for all Category A samples transported by air by IATA member air carriers. Shipping Papers are required by DOT for all Category A samples transported by ground. Information on the DOT Shipping Papers do not need to be in the same format as a Dangerous Goods Shipper's Declaration, but the required content is extremely similar. A Dangerous Goods Shipper's Declaration may be used to satisfy the DOT Shipping Papers requirement. A completed [CDC/APHIS Form 2](#) is required for any confirmed select agent shipment.

| Item | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes |
|----------|--|----|-----|--------------------------------|--------------------------------------|
| | Yes | No | N/A | | |
| 1 | Itemized list of contents included (e.g., test request form) | | | | |
| 2 |  *Dangerous Goods Shipper's Declaration or Shipping Papers included <ul style="list-style-type: none"> Any amendments or alterations made after printing must be signed by shipper | | | | |
| 3 | *Multiple copies of Dangerous Goods Shipper's Declaration provided | | | | |
| 1 | Completed Shipper info (Full name, complete address and phone number) | | | | |
| 2 | Completed Recipient info (Full name, complete address and phone number) | | | | |
| 3 | If used, Airway Bill number listed on Shipper's Declaration | | | | |
| 4 | *Page 1 of 1 completed | | | | |
| 5 | (Optional) Sample/Specimen number listed as "Specimen Reference Number" | | | | |
| 6 |  *Passenger vs Cargo only selected | | | | |

| Item | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes |
|------|---|----|-----|--------------------------------|--------------------------------------|
| | Yes | No | N/A | | |
| 7 | Airport of departure and airport of destination listed (OK to leave blank) | | | | |
| 8 | *Radioactive vs. non-radioactive selected | | | | |
| 9 | UN hazard identification(s) listed <ul style="list-style-type: none"> • UN 2814 or UN 2900 (Category A) • UN 1845 (if dry ice included) • UN 3373 (if Category B included) | | | | |
| 10 |  Proper shipping name listed (either) <ul style="list-style-type: none"> • UN2814 Category A Infectious Substance, Affecting Humans • UN2900 Category A, Infectious Substance, Affecting Animals | | | | |
| 10 | Technical name of organism(s) listed after proper shipping name. Can be either the actual organism name, or "Suspected Category A, Infectious Substance" | | | | |
| 11 | Class or Division listed (6.2 for Category A and B, 9 for dry ice) | | | | |
| 12 | Packing group (Leave blank for 6.2 material, and for dry ice) | | | | |
| 13 | Quantity and type of packaging listed (e.g., 5mL solid). | | | | |
| 14 | *Packing Instruction (PI) listed <ul style="list-style-type: none"> • Category A = PI 620 • Dry ice = PI 954 • Category B = PI 650 | | | | |
| 15 | Authorization code listed (OK to leave blank for routine Category A and dry ice shipments) | | | | |
| 16 | If more than one organism or dry ice is included, they are each listed here | | | | |
| 17 | Type of packaging listed (e.g., "All packed in one fiberboard box" or "Overpack used" if overpack) | | | | |
| 18 | Additional handling information provided (e.g., "Attention to" or list the Responsible Person info) | | | | |
| 19 | 24-hour emergency contact listed (name and number) | | | | |
| 20 | Name/Title of signatory listed | | | | |
| 21 | Place and date listed | | | | |
| 22 | Signed by a currently trained personnel | | | | |

| Item | Present / Included | Acceptable / Appropriate (Y/N) | | | Item(s) in Need of Follow Up / Notes |
|---|--------------------|--------------------------------|----|-----|--------------------------------------|
| | | Yes | No | N/A | |
| 4  Emergency response information (e.g., copy of Guide 158) included | | | | | |
| Shipment (Included images are examples only) | | | | | |
| 1  Sealed and leakproof primary container • Note: A Petri dish is <u>not</u> an acceptable primary container for DOT transport requirements | | | | | |
| 2 If multiple specimens are shipped, they are individually wrapped and packaged so contact is prevented | | | | | |
| 3  Sealed and leakproof secondary container | | | | | |
| 4  Secondary container has a biohazard symbol present | | | | | |
| 5 Either the primary or secondary container is 95 kPa rated (required for samples transported by air only) | | | | | |
| 6 Itemized list of contents (e.g. test request form) outside the secondary container | | | | | |
| 7 Sufficient absorbent material for the entire hazardous contents | | | | | |
| 8 Absorbent material around primary container and inside secondary container | | | | | |
| 9 Sufficient cushioning material present • Note: Absorbent material may also act as cushioning | | | | | |
| 10 Insulated shipping container used if refrigerant included | | | | | |
| 11 Sufficient refrigerant included to maintain temperature | | | | | |
| 12 If dry ice was used, was the total quantity listed on outer package in kg | | | | | |
| 13  If dry ice was used, Miscellaneous Class 9 hazard label present on outer box | | | | | |
| 14  If dry ice was used, UN 1845 hazard label present on outer box | | | | | |

| Item | Present / Included | Acceptable / Appropriate (Y/N) | | | Item(s) in Need of Follow Up / Notes |
|---|---|--------------------------------|----|-----|--------------------------------------|
| | | Yes | No | N/A | |
| 15 | If dry ice was included, the box is not tightly sealed to allow proper ventilation of dry ice gases | | | | |
| 16 | Was the complete Category A shipping unit used (opposed to inner components mixed and matched) | | | | |
| 17  | Was the box a UN certified container bearing the UN symbol | | | | |
| 18 | Complete and correct Shipper info • Full name, complete address and phone number listed | | | | |
| 19 | Complete and correct Recipient info • Full name, complete address and phone number listed | | | | |
| 20 | Responsible person listed | | | | |
| 21  | Category A hazard label present on outer box | | | | |
| 22  | Category A UN hazard identification number label present on outer box (UN2814 or UN2900) | | | | |
| 23  | Orientation marks (Up Arrows) label present on two opposite sides of outer package when >50mL liquids shipped by air | | | | |
| 24  | Cargo only label present on outer box if >50mL shipped in primary container by air transport | | | | |
| 25  | Overpack label present on outer box if overpack was used | | | | |
| 26 | Labels and markings meeting the minimal dimension requirements | | | | |
| Specimen | | | | | |
| 27 | Specimen arrived sealed, not leaking or damaged | | | | |
| 28 | Unique identifier(s) present on primary container(s) | | | | |
| 29 | Primary container within hazardous quantity limits (50mL/50g if shipped by passenger aircraft, or 4L/4kg if shipped by cargo air) | | | | |
| Misc. / Other | | | | | |
| 30  | If overpack was used, was package correctly packed? | | | | |

| | | | | | | |
|--|---|--|--|--|--|--|
| 31  | If overpack was used, was package labeled correctly? | | | | | |
| 32  | If dry ice was used, was hazardous quantity listed correctly? | | | | | |
| 33 | Test request form completed correctly | | | | | |
| Item(s) in Need of Follow Up or Other Notes (Include any photos of actual shipment received that may assist with follow up) | | | | | | |

Evaluated By: _____

Date: _____

Diagram 2: Category A Ambient Shipment Example

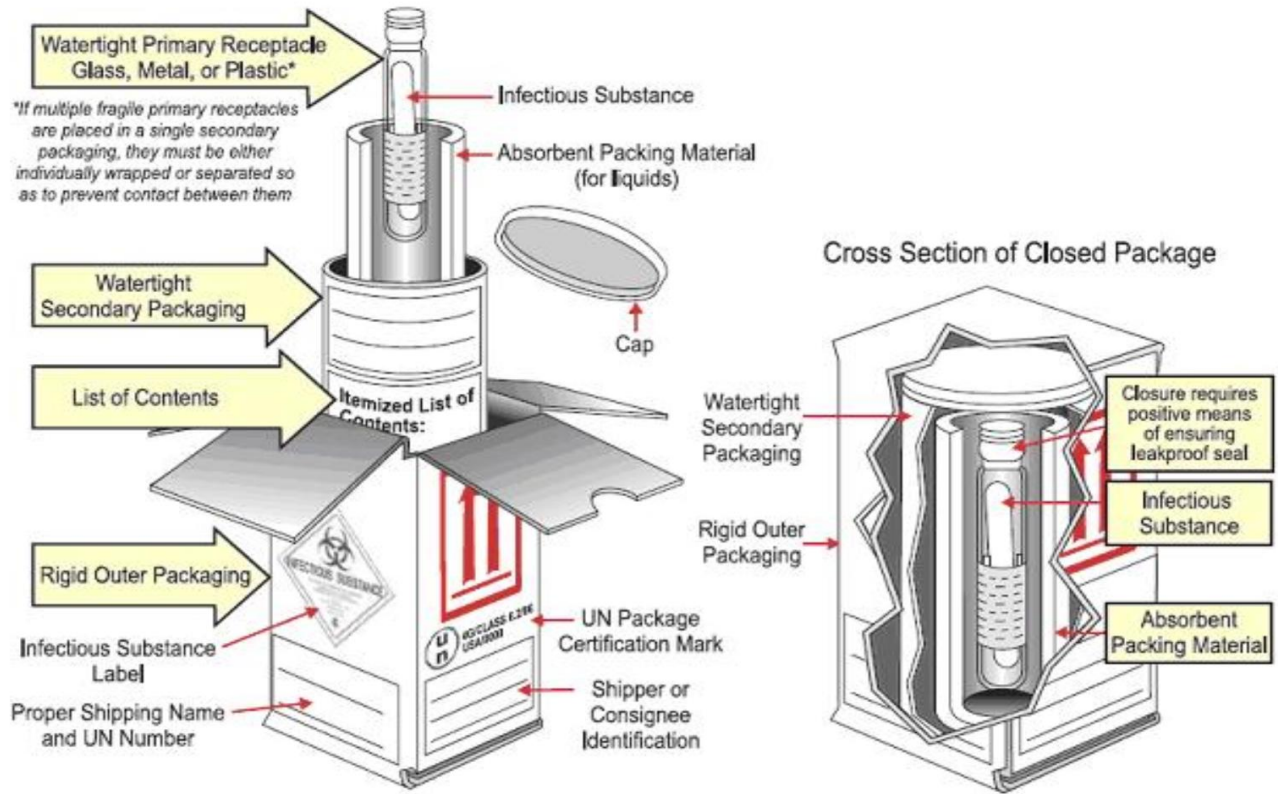


Diagram 3: Category A Shipment with Dry Ice Examples



Note: Diagram 3 shows an example of UN2900, not UN2814

Category B, Biological Substance – Evaluation Form

| Shipping Laboratory: | | | | | | |
|---|--|----|-----|--------------------------------|--------------------------------------|--|
| Shipped Date: | | | | Received Date: | | |
| Shipment Method (carrier or courier): | | | | | | |
| Organism(s) Shipped: | | | | | | |
| Was sample classified appropriately (Y/N)?: | | | | | | |
| Did shipment arrive satisfactorily (Y/N)?: | | | | | | |
| Item | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes | |
| | Yes | No | N/A | | | |
| Outer Container | | | | | | |
| 1 | Package is rigid and of good quality | | | | | |
| 2 | Must not contain more than 4L or 4kg | | | | | |
| 3 | Orientation marks (Up Arrows) on two opposite sides • If shipping liquids greater than 50mL by air | | | | | |
| 4 | UN 3373 Biological Substances, Category B diamond shaped hazard label | | | | | |
| 5 | Full name, complete address and telephone number of the shipper | | | | | |
| 6 | Full name, complete address and telephone number of the recipient | | | | | |
| 7 | Dimension of outer package meets the minimum requirements for regulatory markings and FedEx label | | | | | |
| 8 | Dimensions of hazard labels meets the minimum requirements | | | | | |
| 9 | Irrelevant markings or labels covered or removed | | | | | |
| 10 | Packaging system clean and undamaged | | | | | |
| 11 | Courier packing label or airway bill in an adhesive plastic sleeve on top of box (can be on the side as long as no pertinent markings are covered) | | | | | |
| Secondary Container | | | | | | |
| 12 | Sealed and leak proof | | | | | |
| 13 | Primary OR secondary container is pressure resistant (95kPa compatible) • Required if transported by air | | | | | |
| 14 | Biohazard symbol present on secondary container | | | | | |

| Item | | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes |
|------------------------------|---|--------------------|----|-----|--------------------------------|--------------------------------------|
| | | Yes | No | N/A | | |
| 15 | Itemized list of contents (e.g., test request form) located outside the secondary container | | | | | |
| 16 | Sufficient absorbent material for entire hazardous quantity included within secondary container | | | | | |
| 17 | (Optional) Additional cushioning material placed between primary and secondary as needed, or between secondary and outer container | | | | | |
| Primary Container | | | | | | |
| 18 | Sealed and leak proof | | | | | |
| 19 | Primary OR secondary container is pressure resistant (95kPa compatible) Required if transported by air | | | | | |
| 20 | Contains appropriate specimen/material identifying information such as a patient identification number | | | | | |
| 21 | Sufficient absorbent material present for entire contents of hazardous material and type (liquid or solid) | | | | | |
| 22 | Wrapped in cushioning material as needed to provide structural integrity support. If multiple primary containers are included, individually wrap each one. Note: Absorbent material can also be used as cushioning material. | | | | | |
| Dry Ice (If Included) | | | | | | |
| 23 | Properly ventilated outer package | | | | | |
| 24 | Net quantity of dry ice included listed on outer package (e.g., 3 kg) | | | | | |
| 25 | Marked with dry ice hazard identification number UN 1845 | | | | | |
| 26 | Miscellaneous Hazard Class 9 label | | | | | |
| 27 | Sufficient amount included | | | | | |
| Overpack (If Used) | | | | | | |
| 28 | Overpack label on outer box | | | | | |
| 29 | Inner packages are each properly packed and labeled | | | | | |
| 30 | Outermost packaging labeled with the highest hazard level of the inner contents | | | | | |
| 31 | Quantity of total included hazardous contents listed on outer packaging | | | | | |

| Item | Present / Included | | | Acceptable / Appropriate (Y/N) | Item(s) in Need of Follow Up / Notes |
|--|--|----|-----|--------------------------------|--------------------------------------|
| | Yes | No | N/A | | |
| Other | | | | | |
| 32 | Any permit(s) that may be required | | | | |
| 33 | Any chain of custody form that may be required | | | | |
| 34 | Is the box insulated if it is to contain refrigerants? | | | | |
| 35 | Is the package prepared and closed according to the manufacturer's packaging instructions? | | | | |
| Item(s) in Need of Follow Up or Other Notes (Include any photos of actual shipment received that may assist with follow up) | | | | | |

Evaluated By: _____

Date: _____

Diagram 4: Category B, Biological Substance Shipment Ambient Example

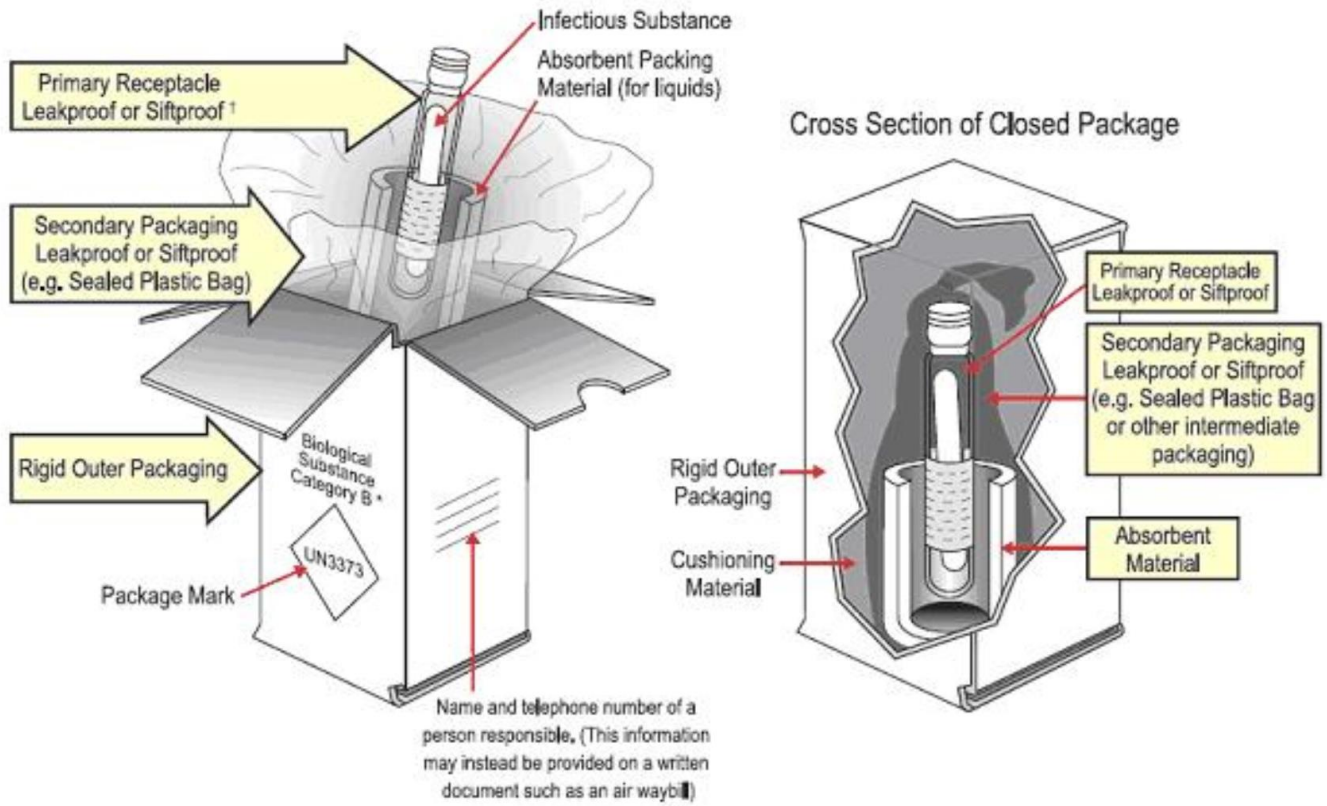
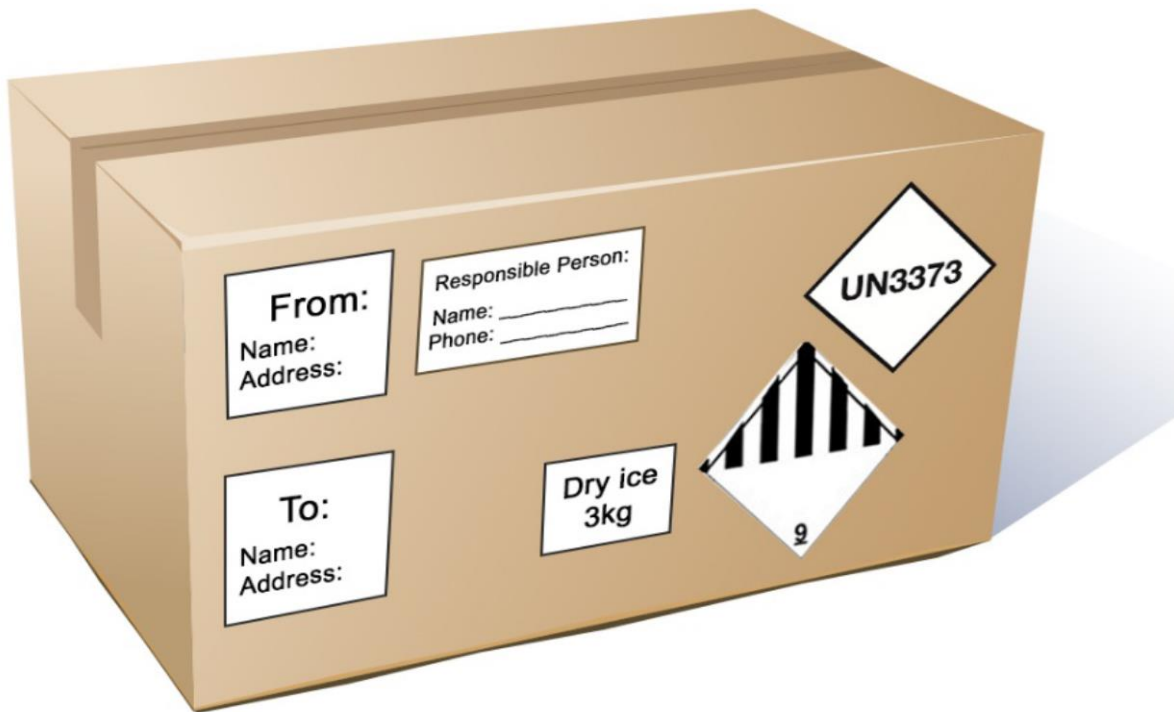


Diagram 5: Category B, Biological Substance With Dry Ice Example



References

- The International Air Transport Association -Dangerous Goods Regulations (DGR)
 - <https://www.iata.org/publications/dgr/Pages/index.aspx>
- Emergency response requirements 49 CFR § 172, Subpart G.
- Emergency Response Guidebook
 - <https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg>
- Incident reporting requirements 49 CFR §171.15 and §171.16.
 - Each notice shall be given telephonically to the DOT at (800) 424-8802. Incidents involving etiologic agents may be made to the CDC at (800) 232-0124. For content of report and additional information, please see § 171.15.
- CDC Permit information
 - <https://www.cdc.gov/cpr/ipp/index.htm>
- ASM Sentinel Laboratory Packaging & Shipping Guidance
 - <https://www.asm.org/ASM/media/Policy-and-Advocacy/LRN/Sentinel%20Files/PackAndShip.pdf>
- CDC Select Agent Form 2 Information
 - <https://www.selectagents.gov/form2.html>
 - <https://www.selectagents.gov/tgd-intro.html>
- U.S. DOT Hazardous Material Regulations (HMR), Title 49 CFR § 100 – 185
 - https://www.ecfr.gov/cgi-bin/text-idx?SID=1d49a3b137cb1b6fc45251074e634b44&tpl=/ecfrbrowse/Title49/49tab_02.tpl
 - <https://www.fmcsa.dot.gov/regulations/hazardous-materials/how-comply-federal-hazardous-materials-regulations>
 - www.phmsa.dot.gov/hazmat
- Hazardous Material Transportation Security Requirements
 - https://hazmatonline.phmsa.dot.gov/services/publication_documents/Enhanced_Security_02_22_12%201.pdf
- FedEx requirements
 - <https://www.fedex.com/en-us/service-guide/dangerous-goods-hazardous-materials.html>

Resources

Supplies

- DOT Free Publication Resources
 - https://hazmatonline.phmsa.dot.gov/services/Pub_Free.aspx
- Emergency Response Guidebook
 - <https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg>
- Air Sea Containers
 - <https://www.airseacontainers.com/>
- Berlin Packaging, LLC
 - <http://www.berlindangerousgoods.com/pages/shop-now>
- CARGOpak Corporation
 - <https://cargopak.com/>
- Labeline
 - <https://www.labeline.com/>
- Inmark, Inc.
 - <http://www.inmarkpackaging.com/>
- O’Berk International, Inc. (Elemental Container, Inc.)
 - <https://www.aluminumbottles.com/>
- SCA ThermoSafe (formerly Polyfoam Packers Corp.)
 - <http://www.thermosafe.com/>
- Saf-T-Pak, Inc., An Inmark Company
 - <http://www.saftpak.com/>

Trainings

- WHO Shipping Training
 - http://www.who.int/ihr/i_s_shipping_training/en/
- OSHA
 - https://www.osha.gov/dte/edcenters/course_description.html
- Iowa Biosecurity Training for the Clinical Laboratory
 - <https://www.training-source.org/training/courses/Biosecurity%20for%20Clinical%20Labs/detail>
- CDC Lab Training
 - <https://www.cdc.gov/labtraining/>
- Courier credentials
 - <http://safer.fmcsa.dot.gov/CompanySnapshot.aspx>

APHL Packaging & Shipping Toolkit

- https://www.aphl.org/programs/infectious_disease/Pages/ID-Packaging-and-Shipping-Toolkit.aspx

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