

# Proper Shipment of Patient Specimens and Infectious Substances

## Shipping Classification Definitions

### Patient Specimens

Specimens collected from humans or animals including, but not limited to, excreta, secretions, blood and its components, tissue and tissue fluid swabs, and body parts being transported for purposes such as research, diagnosis, investigational activities, disease treatment or prevention.

*Note: If specimen has a high likelihood that it contains a human or animal pathogen, then it should be shipped as an Infectious Substance. An element of professional judgment is required when making such a decision. That judgment should be based on the known medical history, symptoms and individual circumstances of the source, and endemic local conditions.*

### Infectious Substances

Substances which are known or reasonably expected to contain pathogens. Pathogens are defined as micro-organisms (including bacteria, viruses, rickettsiae, parasites, fungi) and other agents such as prions, which can cause disease in humans or animals.

- Category A Infectious Substances: An infectious substance which is transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals. See page 2 for a list of example agents.
- Category B Infectious Substances: An infectious substance which does not meet the criteria for inclusion in Category A.

### Genetically Modified Microorganisms (GMMO) and Organisms (GMO)

Microorganisms and organisms in which genetic material has been purposely altered through genetic engineering in a way that does not occur naturally.

## Example List of Category A: Infectious Substances

| UN # and Proper Shipping Name                        | Micro-organism   |  |
|--|--|--|
| UN 2814<br>Infectious Substances<br>Affecting Humans | Bacillus anthracis cultures                                      | Human immunodeficiency virus cultures            |
|  | Brucella abortus cultures  | Highly pathogenic avian influenza virus cultures |
|  | Brucella melitensis cultures                                     | Japanese Encephalitis virus cultures             |
|  | Brucella suis cultures   | Junin virus                                      |
|  | Burkholderia mallei & Pseudomonas mallei cultures                | Kyasanur Forest disease virus                    |
|  | Burkholderia pseudomallei cultures                               | Lassa virus                                      |
|  | Pseudomonas pseudomallei cultures                                | Machupo virus                                    |
|  | Chlamydia psittaci – avian strains cultures                      | Marburg virus                                    |
|  | Clostridium botulinum culture-                                   | Monkeypox virus                                  |
|  | Coccidioides immitis cultures                                    | Mycobacterium tuberculosis cultures Nipah virus  |
|  | Coxiella burnetii cultures Crimean-                              | Omsk hemorrhagic fever virus                     |
|  | Congo hemorrhagic fever virus                                    | Poliovirusa cultures                             |
|  | Dengue virus cultures  | Rabies virus cultures                            |
|  | Eastern equine encephalitis virus cultures                       | Rickettsia prowazekii cultures                   |
|  | Escherichia coli, verotoxigenic cultures                         | Rickettsia rickettsia cultures                   |
|  | Ebola virus cultures   | Rift Valley fever virus cultures                 |
|  | Flexal virus   | Russian spring-summer encephalitis virus         |
|  | Francisella tularensis cultures                                  | Sabia virus Shigella dysenteriae type 1 cultures |
|  | Guanarito virus  | Variola virus                                    |
|  | Hantaan virus  | Venezuelan equine encephalitis virus cultures    |
|  | Hantavirus causing hemorrhagic fever with renal syndrome         | West Nile virus cultures                         |
|  | Hendra virus   | Yellow fever virus cultures                      |
|  | Hepatitis B virus cultures                                       | Yersinia pestis cultures                         |
|  | Herpes B virus cultures  |  |
| UN 2814<br>Infectious Substances<br>Affecting Humans | African swine fever virus cultures                               | Peste des petits ruminants virus cultures        |
|  | Avian paramyxovirus Type 1 – Velogenic                           | Rinderpest virus cultures                        |
|  | Newcastle disease virus cultures                                 | Sheep pox virus cultures                         |
|  | Classical swine fever virus cultures                             | Goatpox virus cultures                           |
|  | Foot and mouth disease virus cultures                            | Swine vesicular disease virus culture            |
|  | Lumpy skin disease virus cultures                                | Vesicular stomatitis virus cultures              |
|  | Mycoplasma mycoides – Contagious bovine pleuropneumonia cultures |  |

## Shipping Information Summary

| Shipment Type   | Shipping Name                            | Proper UN Number | Hazard Class | Packing Group (PG) | Packing Instruction (PI) | Hazard Label(s)      | Max. Net qty./pkg. for Passenger Aircraft | Max. Net qty./pkg. for Cargo Aircraft | Special Provisions ** |
|---|--|------------------|--------------|--------------------|--------------------------|----------------------|---|---------------------------------------|-----------------------|
| Category A infectious substance, affecting humans                 | Infectious substance, affecting humans*  | UN 2814          | 6.2          | -                  | 602                      | Infectious substance | 50mL / 50g                                | 4L / 4kg                              | A81, A140             |
| Category A infectious substance, affecting only animals           | Infectious substance, affecting animals* | UN 2900          | 6.2          | -                  | 602                      | Infectious substance | 50mL / 50g                                | 4L / 4kg                              | A81, A140             |
| Category B infectious substance                                   | Biological substance, category B         | UN 3373          | 6.2          | -                  | 650                      | UN 3373              | 4L / 4kg                                  | 4L / 4kg                              | -                     |
| Category B infectious substance                                   | Biological substance, category B         | UN 3373          | 6.2          | -                  | 650                      | UN 3373              | 4L / 4kg                                  | 4L / 4kg                              | -                     |
| Genetically modified micro-organisms & organisms (non-infectious) | Genetically modified micro-organisms     | UN 3245          | 9            | -                  | 913                      | Miscellaneous        | No Limit                                  | No Limit                              | A47                   |
| Patient Specimens (minimal likelihood that pathogens are present) | N/A                                      | N/A              | N/A          | N/A                | See Checklist on Pg.6    | N/A                  | N/A                                       | N/A                                   | N/A                   |

\* Identify technical name of agent in parenthesis

### \*\* Special Provisions:

- A81 – The maximum quantity of infectious substance that can be shipped by air in one package is 4L or 4kg. The maximum quantity that may be shipped via passenger aircraft is 50mL or 50g. The Special Provision A81 allows the shipment of body parts, organs or whole bodies to not be restricted based on quantity limits, however the shipment must still comply with Packing Instruction 602. Specimens transported in accordance with this Special Provision must be noted on the Shipper's Declaration of Dangerous Goods in the "Authorization" column of the Declaration form.
- A48 – Packaging tests are not considered necessary.
- A47 – Genetically modified micro-organisms and genetically modified organisms, which meet the definition of an infectious substance and the criteria for inclusion in Division 6.2 (Category A or Category B Infectious Substances), must be transported as UN 2814, UN 2900 or UN 3373, as appropriate.
- A140 – For the purposes of documentation, the proper shipping name must be supplemented with the technical name. Technical names need not be shown on the package. When the Infectious Substances to be transported are unknown, but suspected of meeting the criteria of Category A, and assigned to UN 2814 or UN 2900, the words "Suspected Category A Infectious Substance" must be shown in parenthesis following the proper shipping name on the Shipper's Declaration of Dangerous Goods, but not on outer package.

# Checklist for Shipping: Patient Specimens

*For which there is minimal likelihood that pathogens are present*

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## Specimen Packaging

Specimen in leakproof primary container

Absorbent material is sufficient to absorb entire contents of primary container(s)

Primary containers are wrapped individually

Leakproof secondary container

## Labeling Outer Container

Statement: "Exempt human specimen" or "Exempt animal specimen"

Miscellaneous Class 9 label(2) if shipment contains dry ice, "UN 1845" and amount used in kg

## Completing the Airbill

Name and address of shipper and recipient

Check "Saturday Delivery" box if applicable

In Section 6 (Special Handling) of the airbill, indicate that the shipment is NOT a dangerous good

Check the "Dry Ice" box if applicable and indicate "UN 1845" and the quantity of dry ice in kg

Shipper's signature (optional)

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*Note: In determining whether a patient specimen has a minimal likelihood that pathogens are present, an element of professional judgment is required. That judgment should be based on the known medical history, symptoms, and individual circumstances of the source and endemic local conditions.*

# Checklist for Shipping: Category A Infectious Substances

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## Specimen Packaging

Specimen in leakproof primary container

Absorbent material is sufficient to absorb entire contents of primary container(s)

Primary containers are wrapped individually

Leakproof secondary container

Itemized list of contents placed between secondary and outer container

## Labeling Outer Container

Infectious Substance, Class 6 label

"Infectious Substance Affecting Humans", "UN 2814", or "Infectious Substance"

Affecting Animals, "UN 2900", and net quantity of infectious substance Miscellaneous Class 9 label if shipment contains dry ice, "UN 1845" and amount used in kg

Name and telephone number of the responsible party, knowledgeable of the package contents and available 24 hours a day

If a shipment includes >50mL or 50g of a Category A infectious substance, then add a "Danger, do not load in passenger aircraft" label to the outer container

## Dangerous Goods Declaration Form

Name, address and phone number of shipper and recipient

Mark out non-applicable "Aircraft Box"

Mark out non-applicable "Radioactive" box

24-hour emergency response telephone number for the responsible party, knowledgeable of the package contents

Name and title of signatory, place, and date

Shipper's signature

## "Nature and Quantity of Dangerous Goods" section of the Declaration Form

Complete this section using the information provided on Pages 3, 7, and 8 of this Guide

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# Checklist for Shipping: Category B Infectious Substances

## Specimen Packaging

Specimen in leakproof primary container

Absorbent material is sufficient to absorb entire contents of primary container(s)

Primary containers are wrapped individually

Leakproof secondary container

Itemized list of contents placed between secondary and outer container

## Labeling Outer Container

UN 3373 label(1)

"Statement: "Biological Substance, Category B" adjacent to UN 3373 (2) label

Miscellaneous Class 9 label(1) if shipment contains dry ice, "UN 1845"(1) and amount used in kg

## Completing the Airbill

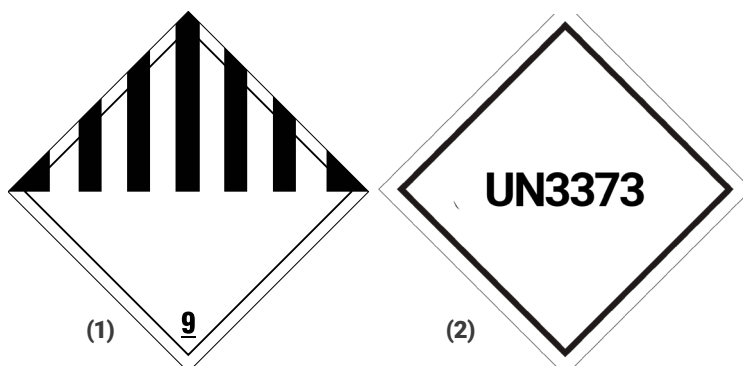
Name and address of shipper and recipient

Check "Saturday Delivery" box if applicable

In Section 6 (Special Handling) of the airbill, indicate that the shipment is a dangerous good, which does NOT require a Shipper's Declaration

Check the "Dry Ice" box if applicable and indicate "UN 1845"(1) and the quantity of dry ice in kg

Shipper's signature (optional)



# Checklist for Shipping: Genetically Modified Micro-organisms & Organisms

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## Specimen Packaging

Specimen in leakproof primary container

Absorbent material is sufficient to absorb entire contents of primary container(s)

Primary containers are wrapped individually

Leakproof secondary container

Itemized list of contents placed between secondary and outer container

## Labeling Outer Container

Miscellaneous Class 9 label

"Genetically modified micro-organism" or "Genetically modified organism", "UN 3245"

If shipment contains dry ice, "UN 1845" and amount used in kg

Name and telephone number of the responsible party, knowledgeable of the package contents and available 24 hours a day

## Dangerous Goods Declaration Form

Name, address and phone number of shipper and recipient

Mark out non-applicable "Aircraft Box"

Mark out non-applicable "Radioactive" box

24-hour emergency response telephone number for the responsible party, knowledgeable of the package contents

Name and title of signatory, place, and date

Shipper's signature

## "Nature and Quantity of Dangerous Goods" section of the Declaration Form"

Complete this section using the information provided on Pages 3, 7, and 8 of this Guide

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# Completing the Top-half of a Dangerous Goods Declaration

| SHIPPER'S DECLARATION FOR DANGEROUS GOODS   |                      |  |  |
|---|----------------------|--|--|
| Shipper<br><br><b>A</b>   |                      | Air Waybill No.<br>Page      of      Pages<br>Shipper's Reference Number (optional)  |  |
| Consignee<br><br><b>B</b>   |                      |  |  |
| Two completed and signed copies of this Declaration must be handed to the operator.   |                      | <b>WARNING</b><br><br>Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.  |  |
| <b>TRANSPORT DETAILS</b>  |                      |  |  |
| This shipment is within the limitations prescribed for:<br><i>(delete non-applicable)</i><br><div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">PASSENGER AND CARGO AIRCRAFT</div> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">CARGO AIRCRAFT ONLY</div> <div style="font-size: 2em; margin-left: 20px;"><b>C</b></div> </div> | Airport of Departure |  |  |
| Airport of Destination  |                      | <b>D</b><br>Shipment Type <i>(delete non-applicable)</i><br><div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">NON-RADIOACTIVE</div> <div style="border: 1px solid black; padding: 2px;">RADIOACTIVE</div> </div> |  |

**Remember, FedEx requires all dangerous goods declaration forms to be typed or computer generated!**

- A – Shipper: Enter your full name, address and telephone number.
- B – Consignee: Enter full name and address of recipient. When shipping infectious substances, include the text, "Person responsible:" plus his/her name and phone number at the bottom of "Consignee" box.
- C – Transport Details: Indicate here if your shipment is restricted to cargo aircraft only (if it is > 50ml or 50g of an infectious substance). Airport of departure and airport of destination will be filled out by the carrier, leave blank.
- D – Shipment Type: Cross out "radioactive" to indicate you are shipping a non-radioactive substance.



# Completing the Bottom-half of the Dangerous Goods Declaration

| NATURE AND QUANTITY OF DANGEROUS GOODS  |                      |                                     |               |  |                      |               |
|---|----------------------|-------------------------------------|---------------|--|----------------------|---------------|
| Dangerous Goods Identification  |                      |                                     |               |  |                      |               |
| UN or ID No.  | Proper Shipping Name | Class or Division (Subsidiary Risk) | Packing Group | Quantity and Type of Packing   | Packing Instructions | Authorization |
| E   | F                    | G                                   | H             | I  | J                    | K             |
|   |                      |                                     |               |  |                      |               |
| Additional Handling Information   |                      |                                     |               |  |                      |               |
| Emergency Telephone Number  |                      |                                     |               |  |                      |               |
| 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 the applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met. |                      |                                     |               | Name/Title of Signatory<br><br>Place and Date<br><br>Signature<br><i>(see warning above)</i> |                      |               |
|   |                      |                                     |               | M  |                      |               |

Created by Andy Glode at the University of New Hampshire Office of Environmental Health and Safety

- E – UN or ID Number: Enter appropriate UN number (i.e. UN 2814 or UN 3245).
- F – Proper Shipping Name: Enter the proper shipping name with the technical name in parentheses – i.e. "Infectious substance, affecting humans (Hepatitis B virus)".
- G – Class or Division: Enter appropriate hazard class (i.e. 6.2 or 9).
- H – Packing Group: For dry ice, enter "III" in this column. Biological materials are not assigned packing groups.
- I – Quantity and Type of Packaging: Enter the net quantity for each material here. Use only metric units. At the bottom of this column, indicate the number and type of packages. If multiple packages are packed in one overpak state ("All packed in one fibreboard box."). Do not spell like "fiberboard." If using an overpack, indicate here with "Overpack Used."
- J – Packing Instructions: Enter appropriate packing instruction number. The Packing Instruction for infectious substances is 602. The Packing Instruction for dry ice is 904. The Packing Instruction for genetically modified micro-organisms or organisms is 913.
- K – Authorization: Note any Special Provisions, if applicable (i.e. if you choose to not include the technical name on outer package, you must list A140 in this column).
- L – Additional Handling Instructions: The statement "Emergency Contact:" followed by a 24-hour emergency telephone response number where the shipper can be reached.
- M – Sign and date each copy of your Shipper's Declaration.

*A statement must appear on the Shipper's Declaration. The statement reads as follows: "I declare that all of the applicable air transport requirements have been met." This statement is often pre-printed on the form (see above). If this statement does not appear on the form then it should be typed in the "Additional Handling" section of the form.*

# Packed in Compliance with IATA Packing Instruction 602 (Category A Infectious Substances)

## An Introduction to the Classifications and Packing Guidelines

Packaging for Infectious Substances Category A & B must comprise of three packaging layers.

- Primary/Inner Packaging (e.g. evacuated tubes; sample pouch; universal pots): Primary must be leak-proof and primary or secondary must withstand an internal pressure of 95kPa.
- Absorbent (e.g. absorbent material, 4 bay pouch): For liquids, there must be absorbent sufficient to absorb entire contents contained in primary packaging. Multiple primaries must be individually wrapped or separated in order to prevent contact between them.
- Secondary Packaging (e.g. pouch/bag, container): Secondary must be leak-proof and secondary or primary must withstand an internal pressure of 95kPa.
- Outer Packaging (e.g. outer box): Rigid outer packaging of adequate strength for its capacity, mass and intended use, and with at least one surface having minimum dimensions of 100mm x 100mm. Also to contain suitable cushioning material and be clearly marked appropriately



*Note: Shipments that include > 50mL or 50g of Category A Infectious Substances must have the danger label attached to the outer container.*



# Does your shipment need a permit?

## CDC Import Permit

Is required if you import:

- Any etiologic agent
- Any arthropod or other animal host or vector of human disease
- Any exotic living arthropod or other animal capable of being a host or
- Vector of human disease

### CDC: Etiologic Agent Import Permit Program

Website: [cdc.gov/cpr/ipp](https://cdc.gov/cpr/ipp)

Telephone: 404.718.2077; FAX: 404.471.8333

Permit Program details: [cdc.gov.cpr/ipp/etool.htm](https://cdc.gov/cpr/ipp/etool.htm)

## USDA/ APHIS Permit

May be required for all imports/exports, and interstate transport of:

- Animal or plant pathogens
- Specimens reasonably believed to contain animal or plant pathogens
- Any pest or vector of animal or plant disease
- Potentially hazardous animal or plant products

### APHIS: Imports and Exports

Website: [aphis.usda.gov/aphis/home](https://aphis.usda.gov/aphis/home)

Telephone: 301.734.3277 (primary contact: Dr. Waleid Muhmed)

Imports and exports details: [aphis.usda.gov/aphis/ourfocus/importexport](https://aphis.usda.gov/aphis/ourfocus/importexport)

## Department of Commerce (DOC) Export License

May be required when exporting:

- Infectious agents of human, plant, and animal diseases
- Genetic material, and products which might be used for culture of large amounts of agents

### DOC: Bureau of Industry and Security (BIS)

Website: [bis.doc.gov](https://bis.doc.gov)

Telephone: 202.482.4811

Review list of biological materials which may require an export license on pages 12-13 of this guide.

**For questions about import or export requirements, contact Biological Safety at 909.60.0160.**

# List of biological materials that may require a DOC Export License

Contact Biological Safety at 909.607.8698 prior to Shipment or Receipt of the following human pathogens and toxins:

## Bacteria

- Bacillus anthracis
- Brucella abortus
- Brucella melitensis
- Brucella suis
- Burkholderia mallei (Pseudomonas mallei)
- Burkholderia pseudomallei (Pseudomonas pseudomallei)
- Chlamydia psittaci
- Clostridium botulinum
- Clostridium perfringens, epsilon toxin producing types
- Enterohaemorrhagic Escherichia coli, serotype O157, and other verotoxin producing serotypes
- Francisella tularensis
- Salmonella typhi
- Shigella dysenteriae
- Vibrio cholerae
- Yersinia pestis

## Toxins

- Abrin
- Aflatoxins
- Botulinum toxins
- Cholera toxin
- Clostridium perfringens toxin
- Conotoxin
- Diacetoxyscirpenol toxin

- HT-2 toxin
- Microcystin (Cyanginosin)
- Modeccin toxin
- Ricin
- Saxitoxin
- Shiga toxin
- Staphylococcal aureus toxins
- T-2 toxin
- Tetrodotoxin
- Verotoxin
- Volkensin toxin
- Viscum albumin lectin 1 (Viscumin)

## Viruses

- Chikungunya virus
- Congo-Crimean haemorrhagic fever virus
- Dengue fever virus
- Eastern equine encephalitis virus
- Ebola virus
- Hantaan virus
- Hendra virus (Equine morbillivirus)
- Japanese encephalitis virus
- Junin virus
- Kyasanur forest virus
- Lassa fever virus
- Louping ill virus
- Lymphocytic choriomeningitis virus
- Machupo virus
- Marburg virus
- Monkeypox virus
- Murray Valley encephalitis virus
- Nipah Virus
- Omsk haemorrhagic fever virus
- Oropouche
- Pulmonary and renal syndrome haemorrhagic fever viruses (Seoul, Dobrava, Puumala, Sin Nombre)
- Rabies virus cultures
- Rift Valley fever virus cultures
- Rocio virus
- South American haemorrhagic fever virus (Sabia, Flexal, Guanarito)
- St. Louis encephalitis virus
- Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus)
- Variola virus
- Venezuelan equine encephalitis virus cultures
- Western equine encephalitis virus
- White pox virus
- Yellow fever virus

Contact Biological Safety at 909.607.8698 prior to Shipment or Receipt of the following animal pathogens and toxins:

### Animal Bacteria

- *Mycoplasma mycoides*

### Animal Viruses

- African horse sickness virus
- African swine fever virus
- Avian influenza virus (highly pathogenic strains)
- Bluetongue virus
- Foot and mouth disease virus
- Goat pox virus
- Lumpy skin disease virus
- Lyssa virus
- Newcastle disease virus
- Peste des petis ruminants virus
- Porine enterovirus type 9 (Swine vesicular disease virus)
- Porcine herpes virus (Aujeszky's disease)

- Rinderpest virus
- Sheep pox virus
- Wine fever virus (Hog cholera virus)
- Teschen disease virus
- Vesicular stomatitis virus

### Plant Fungi

- *Colletotrichum coffeanum* var. *virulans* (C.kahawae)
- *Cochliobolus miyabeanus* (*Helminthosporium oryzae*)
- *Magnaporthe grisea* (*pyricularia grisea/pyricularia oryzae*)
- *Microcyclus ulei* (*Dothidella ulei*)
- *Puccinia graminis* (*Puccinia graminis* f. sp. *tritici*)
- *Puccinia striiformis* (*Puccinia glumarum*)

### Plant Bacteria

- *Xanthomonas albilineans*
- *Xanthomonas campestris* pv. *citri* types A, B, C, D, E or otherwise classified as X.
- *citri*, X *campestris* pv. *aurantifolia* or X.
- *campestris* pv. *Citrumelo*
- *Xanthomonas oryzae*
- *Clavibacter michiganensis* subspecies *sepedonicus*
- *Ralstonia solanacearum* Races 2 & 3

### Plant Viruses

- Potato Andean latent tymovirus
- Potato spindle tuber viroid

### Genetic Elements/Genetically Modified Organisms

Genetic elements that contain nucleic acid sequences associated with the pathogenicity of controlled microorganisms. Genetic elements that contain nucleic acid sequences coding for any controlled "toxins" or "subunits of toxins".

*Technical Note: Genetic elements include, inter alia, chromosomes, genomes, plasmids, transposons, and vectors, whether genetically modified or unmodified. Genetically modified organisms that contain nucleic acid sequences associated with the pathogenicity of controlled microorganisms. Genetically modified organisms that contain nucleic acid sequences coding for any controlled "toxins"*

## HHS AND USDA SELECT AGENTS AND TOXINS 7 CFR Part 331, 9 CFR Part 121, and 42 CFR Part 73

### HHS SELECT AGENTS AND TOXINS

Abrin  
 Botulinum neurotoxins  
 Botulinum neurotoxin producing species of *Clostridium*  
 Cercopithecine herpesvirus 1 (Herpes B virus)  
*Clostridium perfringens* epsilon toxin  
*Coccidioides posadasii/Coccidioides immitis*  
 Conotoxins  
*Coxiella burnetii*  
 Crimean-Congo haemorrhagic fever virus  
 Diacetoxyscirpenol  
 Eastern Equine Encephalitis virus  
 Ebola virus  
*Francisella tularensis*  
 Lassa fever virus  
 Marburg virus  
 Monkeypox virus  
 Reconstructed replication competent forms of the 1918  
     pandemic influenza virus containing any portion of the  
     coding regions of all eight gene segments (Reconstructed  
     1918 Influenza virus)  
 Ricin  
*Rickettsia prowazekii*  
*Rickettsia rickettsii*  
 Saxitoxin  
 Shiga-like ribosome inactivating proteins  
 Shigatoxin  
 South American Haemorrhagic Fever viruses  
     Flexal  
     Guanarito  
     Junin  
     Machupo  
     Sabia  
 Staphylococcal enterotoxins  
 T-2 toxin  
 Tetrodotoxin  
 Tick-borne encephalitis complex (flavi) viruses  
     Central European Tick-borne encephalitis  
     Far Eastern Tick-borne encephalitis  
     Kyasanur Forest disease  
     Omsk Hemorrhagic Fever  
     Russian Spring and Summer encephalitis  
 Variola major virus (Smallpox virus)  
 Variola minor virus (Alastrim)  
*Yersinia pestis*

### OVERLAP SELECT AGENTS AND TOXINS

*Bacillus anthracis*  
*Brucella abortus*  
*Brucella melitensis*  
*Brucella suis*  
*Burkholderia mallei* (formerly *Pseudomonas mallei*)  
*Burkholderia pseudomallei* (formerly *Pseudomonas pseudomallei*)  
 Hendra virus  
 Nipah virus  
 Rift Valley fever virus  
 Venezuelan Equine Encephalitis virus

### USDA SELECT AGENTS AND TOXINS

African horse sickness virus  
 African swine fever virus  
 Akabane virus  
 Avian influenza virus (highly pathogenic)  
 Bluetongue virus (exotic)  
 Bovine spongiform encephalopathy agent  
 Camel pox virus  
 Classical swine fever virus  
*Ehrlichia ruminantium* (Heartwater)  
 Foot-and-mouth disease virus  
 Goat pox virus  
 Japanese encephalitis virus  
 Lumpy skin disease virus  
 Malignant catarrhal fever virus  
     (Alcelaphine herpesvirus type 1)  
 Menangle virus  
*Mycoplasma capricolum* subspecies *capripneumoniae*  
     (contagious caprine pleuropneumonia)  
*Mycoplasma mycoides* subspecies *mycoides* small  
     colony (*MmmSC*) (contagious bovine pleuropneumonia)  
 Peste des petits ruminants virus  
 Rinderpest virus  
 Sheep pox virus  
 Swine vesicular disease virus  
 Vesicular stomatitis virus (exotic): Indiana subtypes  
     VSV-IN2, VSV-IN3  
 Virulent Newcastle disease virus<sup>1</sup>

### USDA PLANT PROTECTION AND QUARANTINE (PPQ) SELECT AGENTS AND TOXINS

*Peronosclerospora philippinensis* (*Peronosclerospora sacchari*)  
*Phoma glycicola* (formerly *Pyrenochaeta glycines*)  
*Ralstonia solanacearum* race 3, biovar 2  
*Rathayibacter toxicus*  
*Sclerophthora rayssiae* var *zeae*  
*Synchytrium endobioticum*  
*Xanthomonas oryzae*  
*Xylella fastidiosa* (citrus variegated chlorosis strain)

11/17/2008

<sup>1</sup> A virulent Newcastle disease virus (avian paramyxovirus serotype 1) has an intracerebral pathogenicity index in day-old chicks (*Gallus gallus*) of 0.7 or greater or has an amino acid sequence at the fusion (F) protein cleavage site that is consistent with virulent strains of Newcastle disease virus. A failure to detect a cleavage site that is consistent with virulent strains does not confirm the absence of a virulent virus.





# Manufacturers of Certified Shipping Containers for Infectious Substances, Patient Specimens, and Dry Ice

## **Source Packaging of New England, Inc.**

405 Kilvert St.

Warwick, RI 02886

800.200.0366

[sourcepackaging.com](http://sourcepackaging.com)

## **Therapak Corporation**

1440 Arrow Highway, Unit A

Irwindale, CA 91706

888.505.7377

[therapak.com](http://therapak.com)

## **CARGOpak Corporation**

3215-A Wellington Court

Raleigh, NC 27615

800.266.0652

[cargopak.com](http://cargopak.com)

## **Inmark, Inc.**

220 Fisk Drive S.W.

Atlanta, GA 30336-0309

800.646.6275

[inmarkinc.com](http://inmarkinc.com)

## **EXAKT Technologies, Inc.**

7416 N Broadway Ext.,

Suite E

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[exaktusa.com](http://exaktusa.com)

## **HAZMATPAC, Inc.**

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## **Sonoco Thermosafe**

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