

# **Training Supplemental Guide 2011**



## **Proper Shipment of Patient Specimens and Infectious Substances**



**KECK GRADUATE INSTITUTE**  
*of Applied Life Sciences*

**Keck Graduate Institute  
Chemical and Biological Laboratory Safety  
For questions, call 607-8698**

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## SHIPPING CLASSIFICATION DEFINITIONS

### ***Patient Specimens:***

Specimens collected from humans or animals including, but not limited to, excreta, secreta, 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.*

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### **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

- A. ***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 4 for a list of example agents.
- B. ***Category B Infectious Substances:*** An infectious substance which does not meet the criteria for inclusion in Category A

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**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

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**Example List of Category A: Infectious Substances**

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

## 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)

### **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)

**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*

### **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 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 5, 9 & 10 of this Guide

## **Checklist for Shipping** *Category B Infectious Substances*

### Specimen Packaging

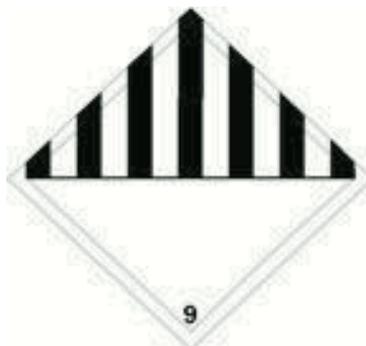
- Specimen in leakproof primary container
- Absorbent material is sufficient to absorb entire contents of primary container(s)
- Primary containers are wrapped individually
- Leakproof secondary container
- Itemized list of contents placed between secondary and outer container

### 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*

### **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 5, 9 & 10 of this Guide

## Completing the Top-half of a Dangerous Goods Declaration

SHIPPER'S DECLARATION FOR DANGEROUS GOODS						
Shipper <b>A</b>		Air Waybill No. Page of Pages Shipper's Reference Number (optional)				
Consignee <b>B</b>						
Two completed and signed copies of this Declaration must be handed to the operator.		WARNING				
<b>TRANSPORT DETAILS</b>						
This shipment is within the limitations prescribed for: <i>(delete non-applicable)</i>		Airport of Departure				
<table border="1"> <tr> <td>PASSENGER AND CARGO AIRCRAFT</td> <td>CARGO AIRCRAFT ONLY</td> <td><b>C</b></td> </tr> </table>		PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY	<b>C</b>		
PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY	<b>C</b>				
Airport of Destination		<b>D</b> Shipment Type <i>(delete non-applicable)</i> <table border="1"> <tr> <td>NON-RADIOACTIVE</td> <td>RADIOACTIVE</td> </tr> </table>		NON-RADIOACTIVE	RADIOACTIVE	
NON-RADIOACTIVE	RADIOACTIVE					

**\* 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		
				Place and Date		
				Signature <i>(see warning above)</i>		

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 overpack 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.

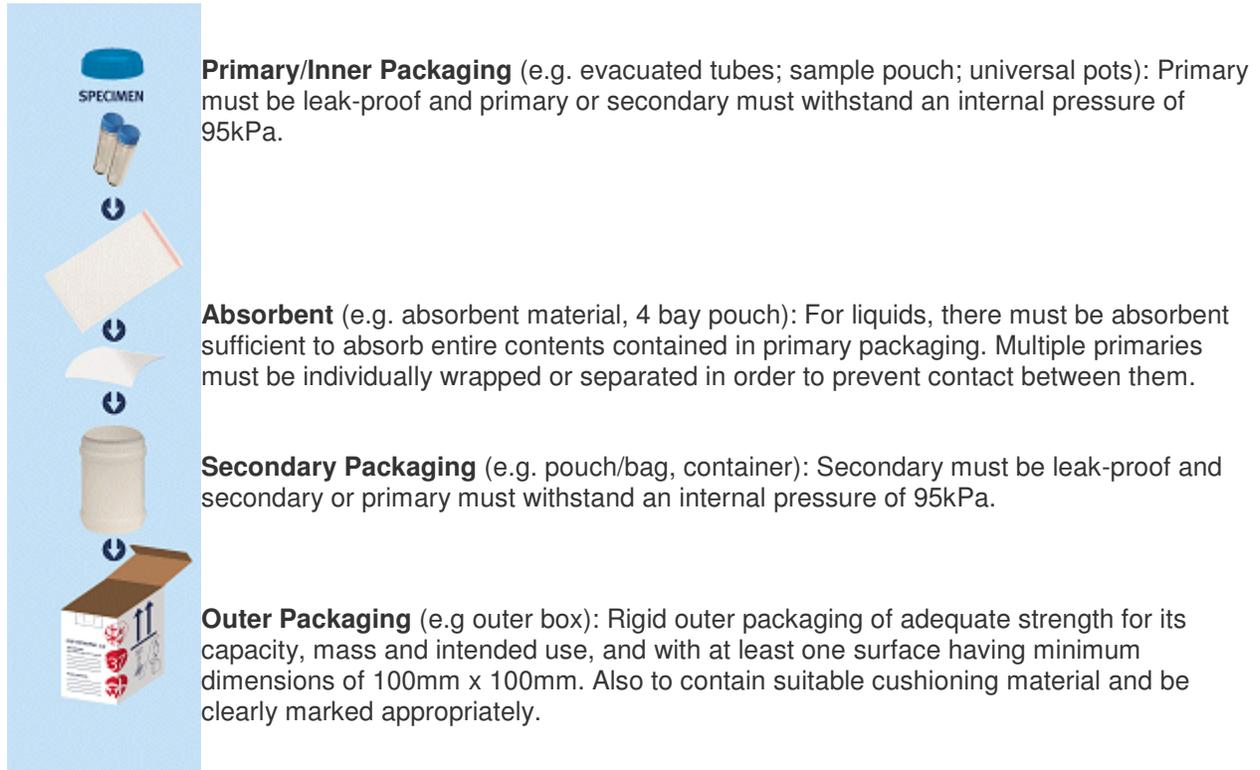
**M – Sign and date each copy of your Shipper’s Declaration.**

\*\* 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 3 packaging layers:



**Note:** Shipments that include > 50mL or 50g of Category A Infectious Substances must have this 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: <http://www.cdc.gov/od/ohs/biosfty/imprtper.htm>
- 🌐 Telephone: 404-498-2260; FAX: 404-498-2275
- 🌐 Permit Application: <http://www.cdc.gov/od/ohs/biosfty/0753.pdf>

### USDA/ APHIS Permit:

- 🌐 May be required for all imports/ exports, and inter-state 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: National Center for Import and Export (NCIE)

- 🌐 Website: <http://www.aphis.usda.gov/vs/ncie/>
- 🌐 Telephone: 301-734-3277 (primary contact: Dr. Waleid Muhmed)
- 🌐 Permit Application (VS Form 16-3):
- 🌐 <http://www.aphis.usda.gov/vs/ncie/pdf/vs16-3.pdf>

### 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: <http://www.bis.doc.gov/index.htm>
- 🌐 Telephone: 202-482-4811
- 🌐 Review list of biological materials which may require an export license on pages
- 🌐 14 and 15 of this guide.

**For questions about import or export requirements, contact Biological Safety at 607-0160**

**Contact Biological Safety at 607-8698 prior to Shipment or Receipt of the following:**

**List of Biological Materials that MAY Require a DOC Export License**

HUMAN PATOGENS AND TOXINS	
<p><b>Bacteria</b>            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 tuarensis            Salmonella typhi            Shigella dysenteriae            Vibrio cholerae            Yersinia pestis</p>	<p><b>Toxins</b>            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)</p>
<p><b>Viruses</b>            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 virus            Powassan virus</p>	<p><b>Viruses cont'd</b>            Pulmonary and renal syndromehaemorrhagic 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-bourne encephalitis virus (Russian Spring-Summer encephalitis virus)            Variola virus            Venezuelan equine encephalitis virus cultures            Western equine encephalitis virus            White pox virus            Yellow fever virus</p>

**Contact Biological Safety at 607-8698 prior to Shipment or Receipt of the following:**

## List of Biological Materials that MAY Require a DOC Export License – Continued

### ANIMAL PATHOGENS AND TOXINS

#### Bacteria

*Mycoplasma mycoides*

#### 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

#### Viruses continued

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)  
Teschin disease virus  
Vesicular stomatitis virus

### PLANT PATHOGENS

#### Fungi

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

#### 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  
Viruses  
Potato Andean latent tymovirus  
Potato spindle tuber viroid

#### 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 glycinicola* (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 & Dry Ice**

DG Supplies, Inc.  
5 Boxal Drive  
Cranbury, NJ 08512  
Phone: 800-347-7879  
<http://www.dgsupplies.com>

CARGOpak Corporation  
3215-A Wellington Court  
Raleigh, NC 27615  
Phone: 800-266-0652  
<http://www.cargopak.com>

Corporate One Way  
1195 Washington Pike  
Bridgeville, PA 15017  
Phone: 800-245-2283  
<http://www.all-pak.com>

JIT Certified, Inc.  
1740 Fenpark Drive  
Fenton, MO 63026  
Phone: 800-962-8636  
<http://www.jitcertified.com>

Inmark, Inc.  
220 Fisk Drive S.W.  
Atlanta, GA 30336-0309  
Phone: 800-646-6275  
<http://www.inmarkinc.com>

HAZMATPAC, Inc.  
5301 Polk St., Bldg. 18  
Houston, TX 77023  
OgibeL 800-347-7879  
<http://www.hazmatpac.com>

Source Packaging of New  
England, Inc.  
405 Kilvert St.  
Warwick, RI 02886  
Phone: 800-200-0366  
<http://www.sourcepak.com>

SAF-T-PAK, Inc.  
10807-182 Street Edmonton,  
Alberta, Canada, T5S 1J5  
Phone: 8008-814-7484  
<http://www.saftpak.com>

Polyfoam Packers  
Corporation  
2320 S. Foster Avenue  
Wheeling, IL 60090  
Phone: 888-765-9362  
<http://www.polyfoam.com>

Therapak Corporation  
1440 Arrow Highway, Unit A  
Irwindale, California 91706  
Phone: 888-505-7377  
<Http://www.therapak.com>

EXAKT Technologies, Inc.  
7416 N Broadway Ext.,  
Suite E  
Oklahoma City, OK 73116  
Phone: 800-923-9123  
<http://www.exaktpak.com>

Air Sea Atlanta  
1234 Logan Circle  
Atlanta, GA 30318  
Phone: 404-351-8600  
<http://www.airseatlanta.com>  
All-Pak, Inc.