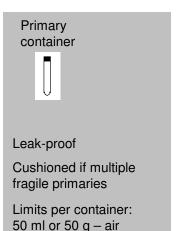
### Category A – Infectious substance 6.2

Definition – A pathogen (infectious substance) capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals. The most common examples are in appendix A at the end of this document copied from the training manual.

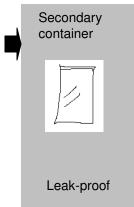
UN2814 - can cause disease in humans OR UN2900 - can cause disease in animals only

### <u>Packaging</u>





Absorbent between with liquids



Secured and not rattling around

Dry ice if needed (200 Kg limit – but only 5lbs for US postal)

Itemized list of contents



### Labeling / Markings

"Infectious substance, affecting humans UN2814"

4 L or 4 Kg - cargo

#### OR

"Infectious substance, affecting animals only UN2900"

Name, Address, phone of shipper and consignee (or on paperwork)







**IF** contains dry ice

Only for air shipments



IF contains >50 mls of liquid per primary container

"UN1845 Dry
Ice" + Net
quantity in Kg. IF
contains dry ice



IF exceeds quantity limits for air

### **Documentation**

Airway bill needed for air shipments (see manual pg 31). The airway bill is what-ever the shipping company uses. For **Fedex** check "yes: as per attached shippers declaration". If the package contains dry ice check the dry ice box and fill in the weight



#### General

If dry ice is used, it must be listed on the shippers declaration and the Air Waybill as:

- ID#: UN1845
- Proper Shipping name: Carbon dioxide solid <u>OR</u> Dry ice
- Class: 9PG: III

Shippers declaration is required for this type of shipment (see manual pg 28). The standard form can be found online.

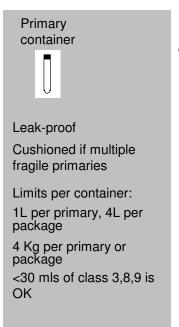
24 hr phone# of knowledgeable person required

### Category B - Biological substance

Definition – A pathogen (infectious substance) which does not meet the criteria for category A

**UN3373** – Biological substance, category B

### <u>Packaging</u>



Either must pass pressure test – 13.8 psi

Absorbent between with liquids

Secondary container



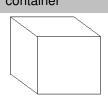
Leak-proof

Secured and not rattling around

Dry ice if needed (200 Kg limit – but only 5lbs for US postal)

Itemized list of contents

Outer container



Sturdy box – passes drop tests

OK to use cat. A box for cat B shipment

If dry ice – can breathe Min area-4x4 in

### Labeling / Markings



+

Name, address, phone of shipper and consignee (or on paperwork)



-

IF contains dry ice

Only needed for air shipments





IF contains >50 mls of liquid per primary container



"UN1845 Dry Ice" + Net quantity in Kg. IF contains dry ice

### Documentation

Airway bill needed for air shipments (see manual pg 31). The airway bill is what ever the shipping company uses.

### For Fedex dangerous goods section:

If no dry ice check "No"



For dry ice check "yes: shippers declaration not required" and "dry ice" with weight.



#### General:

If dry ice is used, it must be listed on the Air Waybill as:

- ID#: UN1845
- Proper Shipping name: Carbon dioxide solid <u>OR</u> Dry ice
- Class: 9
- · PG: III

### **Exempt - Patient specimens**

Patient specimens that meet cat. A or B description must meet all shipping requirements of those categories.

A patient specimen may be EXEMPT from the regulations if there is a minimal likelihood that pathogens are present according to professional judgment based on known medical history, symptoms and individual circumstances or the source. Some examples of exempt patient specimens are: blood or urine tests to monitor things like cholesterol levels or glucose levels. Also, tests for organ function, therapeutic drug monitoring, pregnancy tests, etc. If a patient is being tested for a pathogen you should package it accordingly for the suspected pathogen.

This is also the best way to ship non-pathogenic cultures, pathogen free cells, recombinant DNA and other non-pathogenic biological items (note: pathogenic eukaryotic virus DNA that is more than 2/3 of the genome should be shipped category B).

### If Patient specimens are exempt then the following apply:

### Packaging





Leak-proof

Cushioned if multiple fragile primaries

Absorbent between with liquids

# Secondary container



Leak-proof

Biohazard symbol

Secured and not rattling around

Dry ice if needed (200 Kg limit – but only 5lbs for US postal)

### Outer container



Sturdy box

If dry ice - can breathe

Min area-4x4 in

### Labeling / Markings

"Exempt Human Specimen" OR

"Exempt Animal Specimen"





IF contains dry ice

Only needed for air shipments





**IF** contains >50 mls of liquid per primary

container

"UN1845 Dry lce" + Net quantity in Kg. IF contains dry ice

### Documentation

Air Waybill needed for air shipments with dry ice (see manual pg 31). The airway bill is what ever the shipping company uses. See category B sheet for **Fedex** examples.

#### General:

If dry ice is used, it must be listed on the Air Waybill as:

- ID#: UN1845
- Proper Shipping name: Carbon dioxide solid <u>OR</u> Dry ice
- Class: 9
- PG: III

**Dead animals**, if infectious or likely to be, must comply with Class A or B and, if over the weight or volume limits, must site the "body parts" special provision A81 on the paperwork. If the animal is not infective it should be shipped "exempt animal specimen".

# For overpacks (all categories):

Overpacks are when 2 or more stand alone boxes are packed in a larger box for easier or economical shipping.

The outer package must be labeled overpack and be marked and labeled the same way as the inner packages

Also it contains class 2-6 or 8 dangerous goods then the net quantity must be marked on the outer box.

# Appendix A

Indicative examples of Infectious Substances included in Category A in any form Unless otherwise indicated IATA/ICAO, DOT list

UN Number and Proper Shipping Name	Micro-organism
UN2814	Bacillus anthracis (cultures only)
T. C	Brucella abortus (cultures only)
Infectious substance,	Brucella melitensis (cultures only)
affecting humans	Brucella suis (cultures only)
	Burkholderia mallei – Pscudomonas mallei – Glanders (cultures only)
	Burkholderia pseudomallei Pseudomonas pseudomallei (cultures only)
(Meaning humans or both	Chlamydia psittaci – avian strains (cultures only)
humans and animals)	Clostridium botulinum (cultures only)
	Coccidioides immitis (cultures only)
	Coxiella burnetii (cultures only)
	Crimean-Congo hemorrahagic fever virus
	Dengue virus (cultures only)
	Eastern equine encephalitis virus (cultures only)  Escherichia coli, verotoxigenic (cultures only)
	Ebola virus
	Flexal virus
	Francisella tularensis (cultures only)
	Guanarito virus
	Hantaan virus
	Hantaviruses causing hantavirus pulmonary syndrome
	Hendra virus
	Hepatitis B virus (cultures only)
	Herpes B virus (cultures only)
	Human immunodeficiency virus (cultures only)
	Highly pathogenic avian influenza virus (cultures only)
	Japanese Encephalitis virus (cultures only)
	Junin virus
	Kyasanur Forest disease virus
	Lassa virus
	Machupo virus
	Marburg virus
	Monkeypox virus
	Mycobacterium tuberculosis (cultures only)
	Nipah virus
	Omsk hemorrhagie fever virus
	Poliovirus (cultures only)
	Rabies and other lyssaviruses (cultures only)
	Rickettsia prowazekii(cultures only)
	Rickettsia rickettsii (cultures only)
	Rift Valley fever virus
	Russian spring-summer encephalitis virus (cultures only)
	Sabia virus
	Shigella dysenteriae type 1 (cultures only)
	Tick-horne encephalitis virus (cultures only)
Appropriate Physical Indian	Variola virus
	Venezuelan equine encephalitis virus
	West Nile virus (cultures only)
	Yellow fever virus (cultures only) Yersinia pestis (cultures only)

## Appendix A cont.

Indicative examples of Infectious Substances included in Category A in any form
Unless otherwise indicated, continued.

UN Number and Proper Shipping Name	Micro-organism
UN 2900	African swine fever virus (cultures only)
Infectious substance,	Avian paramyxovirus Type 1 – Velogenic Newcastle disease virus (cultures only)
affecting animals	Classical swine fever virus (cultures only)
	Foot and mouth disease virus (cultures only)
(Meaning causing disease in animals only)	Lumpy skin disease virus (cultures only)
	Mycoplasma mycoides - Contagious bovine pleuropneumonia (cultures only)
	Peste des petits ruminants virus (cultures only)
	Rinderpest virus (cultures only)
	Sheep-pox virus (cultures only)
	Goatpox virus (cultures only)
	Swine vesicular disease virus (cultures only)
	Vesicular stomatitis virus (cultures only)
	es biotism or mitrasis with non-
	Lancon Indiana and Alexander St. C. C. C.

