



* - Requirements for shipping infectious substances

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* - Requirements for shipping infectious substances

2 mains Categories = Category A & Category B

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Infectious Substances = Definitions

- •- Substances which are known or are reasonably expected (suspected?) to contain pathogens.
- * Pathogens are defined as micro-organisms (bacteria, viruses, rickettsiae, parasites,...) or their agents (prions, ..) which can cause disease in humans or animals



Biological Products = Definitions

- Products deriving from living organisms:
- * which are manufactured and distributed in accordance with N.A. (National Authorities),
- which may have licensing requirements and are used either
 - ** for prevention, treatment or diagnosis of disease in humans or animals
 - ** or for development, experimental or investigational purposes related thereto



Cultures = Definitions

- Cultures are the result of a process by which pathogens are intentionally propagated.
- Cultures does not include patient specimens as defined next diapo.



Patient Specimens = Definitions

- Patients specimens are those collected directly from humans or animals,
 - * including, but not limited to, excreta, blood, and the components, tissue and tissue fluid swabs and
 - * body parts being transported for purposes such as research, diagnosis, investigational activities, disease treatment and prevention.



Medical or Clinical Waste = Definitions

- * Medical or Clinical Wastes are:
 - wastes derived from the medical treatment of animals, or humans or from bio-research.







UN 2814 = Infectious Substances, affecting humans

UN 2900 = Infectious Substances, affecting animals

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- Table 2-10 (Tech. Inst.) shows an Indicative Examples of infectious substances included in Category A in any form unless otherwise indicated.
- *- UN 2814: Infectious substances affecting humans (liquid) or (solid) [and add Technical Name on the DGD)
- *- UN 2900: Infectious substances affecting animals (liquid) or (solid) [and add Technical Name on the DGD)



- Table 3.1 = List of Dangerous Goods (ICAO Tech. Inst.)
- *- UN 2814 and UN 2900

Forbidden to be shipped in E.Q (E0) and/or in Y (Ltd Q)

Max. Quantity per package: 50 ml or 50 g on PAX aircraft

Max. Quantity per package: 4 L or 4 kg on CAO aircraft

Packing Instruction = P.I. 620 (see page 4.8.2 – Part 4)

* - Check SP A 81 (page 3.3.8) and A 140 (page 3.3.13)



*- Marking Requirements - Part 6

Example for marking packagings for infectious substances:

U 4G/CLASS 6.2/18

as in 6.4.2 a), b), c) and d)

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- as in 6.4.2 e) and f)
- *- Packaging Requirements Part 6, Chapter 6
- All packages containing infectious substances must be marked on the outside of the package with:

NAME and TPH NUMBER of a Person Responsible



- *- Labelling Requirements Part 5 (see 5.3.14)
- * When UN 1845 (Dry Ice) is part of the shipment, you must add label Class 9 as in 5.3.17
- * When shipment concerns Liquid, you must add label Package Orientation as in 5.3.19 (Fig 5-29)



- 1 "Pre" arrangement must be done before any shipment of Infectious substance
- 2 Airway bill from the Freight forwarder
- 3 Transport Doc. (DGD) from the shipper (Part 5 chapter 4)
- 4 Acceptance by operator (special acceptance check-list for Infectious Substance)
- 6 Loading UN 2814 or UN 2900 (separation with food, ..)
- 7 Loading when accompanied by Dry-Ice (UN 1845) see Part 7 (2-11) page 7.2.9







* **CATEGORY** B = **UN** 3373

UN 3373: Biological substances, Category B

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Biological Substances, Category B = UN 3373

- Table 3.1 = List of Dangerous Goods (ICAO Tech. Inst.)
- * Infectious Substance which does not met the criteria for inclusion in Category A
- * UN 3373 = Biological Substances Category B
- * Forbidden to be shipped in E.Q (E0) and/or in Y (Ltd Q)
- * See P.I. 650



CATEGORY B = UN 3373 (P.I. 650)

- * Primary receptacle (leakproof) must not contain more than 1 L
- secondary packaging must be leakproof
- absorbent material must be placed between primary receptacle and second packaging
- * outer packaging must not contain more than 4 L. (4 kg is solid) (This quantity excludes ice, dry-ice, or liquid nitrogen..when used)



CATEGORY B = UN 3373

- 1 Air waybill from the Freight forwarder
- 2 Shipper declaration for DG (DGD) is not required
- 3 Some operators might request check-list for acceptance UN 3373 shipments (packages)
- 4 As classified in Div 6.2, when UN 3373 packages are accompanied by Dry-Ice (UN 1845) loading instruction in Part 7 (2-11) page 7.2.9 (T.I.) must be applied.
- 5 Name and TPH number of a person responsible must be provided on the AWB, or on the UN 3373 Package.







* Bio-Medical (or) Clinical, (or) Medical

Waste, n.o.s. = UN 3291

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Bio-Medical, Clinical, or Medical Waste,

- UN 3291, but check with A 117 (page 3.3.11)
- Table 3.1 = List of Dangerous Goods (ICAO Tech. Inst.)
- * Forbidden to be shipped in E.Q (E0) and/or in Y (Ltd Q)
- Max. Quantity per package: No limit on PAX and/or CAO aircraft
- * Packing Instruction = P.I. 622 (see page 4.8.2 Part 4)



Clinical (or Medical) Waste, n.o.s. = UN

* - Check **SP** A 117 (page 3.3.11)

* - Wastes containing Category A infectious substances

must be assigned to UN 2814 or UN 2900.



Wastes - Clinical (or Medical) Waste, n.o.s. = <u>SP - A 117</u>

- * Wastes containing Category A infectious substances must be assigned to UN 2814 or UN 2900.
- * Wastes transported under UN 3291 are wastes containing infectious substances in Category B or wastes that are reasonably believed to have a low probability of containing infectious substances.



Wastes - Clinical (or Medical) Waste, n.o.s. = SP - A 117

* - Decontaminated wastes which previously contained infectious substances may be considered as not subject to these Instructions unless the criteria of another class or division are met.



Exercise 1 on DIV 6.2 - Part 4

The National Rangoun Laboratory has to ship (by air) from Rangoun to the International Research Center in Singapour 80 ml of cultures of the Classical swine fever virus.

Q1 – What is the UN number :.....

Q2 – What should be the (minimum) number of package to be sent to this Int'l Center:



Exercise 2 on DIV 6.2 - Part 4

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Q3: Is a DGD required for a parcel containing 3 L of UN 3373 to be sent from Rangoun to Hanoï?







Thank You for your attention