

# SAMPLE

# 2011

Compliance Training Reference Manual for the  
**Safe Transport of Division 6.2 Infectious Substances,  
Biological Specimens, Dry Ice and Related Materials**  
Effective January 1 - December 31, 2011



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## Introduction

How would you react if an overnight shipping envelope arrived at your home and it had been contaminated with blood from an unknown source? Every day millions of packages containing blood, body fluids, tissues, infectious cultures or other biohazardous materials are sent around the world. Like you, postal, airline, transport industry personnel and the general public have concerns about the possibility of becoming infected as the result of exposure to infectious micro-organisms that may be released from broken, leaking or improperly packaged materials.

### >> SAF-T-TIP

“Dangerous Goods”  
“Hazardous Materials”  
“Hazmat”  
All have the same meaning

For transport purposes, infectious substances are considered dangerous goods, hazardous materials or hazmat. This means, should an accident or incident occur during transportation, an infectious substance has the capability of causing harm to an exposed individual. In order to avoid such exposure, national and international regulations govern how such shipments are prepared and transported. These regulations outline requirements for safe packaging and provide information in the form of labels and marks that help communicate the hazardous nature of the shipment and ensure proper handling. The primary reason for these regulations is to ensure the safety of everyone involved in the transportation of infectious substances or other dangerous goods.

National and international regulations dictate that any individual involved in the transport of hazardous materials must be trained, tested, certified and retain a record of the training. Certification is achieved when an individual demonstrates their knowledge and understanding of the regulations. For those attending a training seminar provided by Saf-T-Pak, an in-class, hands-on exercise satisfies this requirement. For those using this manual, an on-line exam is available.

Upon completion of the Saf-T-Pak training, participants will be able to:

- Explain the sources of the regulations and their applicability to various modes of transport
- Explain the dangerous goods responsibilities of the shipper (consignor), carrier (operator), and receiver (consignee)
- Classify Dangerous Goods by Classes and Divisions including Division 6.2 and Class 9
- Classify infectious substances and determine whether they should be shipped as Category A, Category B or Exempt patient specimens
- Classify other dangerous goods such as dry ice and genetically modified organisms
- Determine what types of biological materials are exempt from dangerous goods regulations
- Select the appropriate shipping name and apply the requirements from the list of dangerous goods
- Select proper packaging
- Properly pack infectious substances
- Correctly mark and label a package
- Complete appropriate documentation; and
- Implement emergency response procedures and security requirements

### >> TECHNICAL NOTE

If you are using this manual for self-study, there is a test available at [www.training.saftpak.com](http://www.training.saftpak.com). To access the exam you will need a code. Contact a representative at Saf-T-Pak to obtain a code by phone 780-486-0296. After completion of the exam a certificate will be available to print. Please note the exam needs to be finished.

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## >> TECHNICAL NOTE

### The terms:

Class 6.2

Division 6.2

Class 6 Division 2, and

Class 6 Division 6.2

All mean the same thing.

### Training Based on International and Local Regulations

The 2011 Saf-T-Pak Training Reference Manual is primarily based on the international regulations developed by the United Nations Committee of Experts. However, it also provides interpretations to international as well as country/region-specific regulations from regulatory bodies including:

- International Civil Aviation Organization (ICAO)
- International Air Transport Association (IATA)
- US Department of Transportation (49 CFR)
- Transport Canada (TDGR)
- Economic Commission for Europe (ADR/RID)

The following are examples of how these differences are communicated:

*Differences between the International Air Transport Association (IATA) regulations and the ICAO TI will be in italics.*



Regulations that only apply to Dangerous Goods in the United States will be written in blue and be preceded by the American Flag (taken from the U.S. Code of Federal Regulations, 49 CFR).



Regulations that only apply to Dangerous Goods in Canada will be written in red and be preceded by the Canadian Flag (taken from the Canadian Transport of Dangerous Goods Regulations).



Regulations that only apply to the transport of dangerous goods in Europe by ground as outlined in ADR will be written in green and be preceded by the Flag of the European Union.

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## Classes of Dangerous Goods

Dangerous goods are divided into groups or classes based on the type of danger they pose. There are nine different classes of dangerous goods. Some of the classes are further divided into divisions. When a dangerous good can be classified under two different classes, the most dangerous class is listed as the Primary Class and the less dangerous class is listed as the Subsidiary Risk (for example, a flammable, toxic liquid). **The class and division numbers simply indicate the type of hazard and NOT the degree of hazard.**

### 1 Explosives

- 1.1 Mass explosion hazard
- 1.2 Projection hazard but not a mass explosion hazard.
- 1.3 Fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard
- 1.4 No significant hazard
- 1.5 Very insensitive substance with a mass explosion hazard
- 1.6 Extremely insensitive articles with no mass explosion hazard

### 2 Gases

- 2.1 Flammable gas
- 2.2 Non-flammable, non-toxic gases
- 2.3 Toxic gases

### 3 Flammable liquids

### 4 Flammable solids

- 4.1 Flammable Solids, readily combustible, solid desensitized explosives
- 4.2 Substances Liable to Spontaneous Combustion
- 4.3 Water-reactive Substances

### 5 Oxidizing substances and organic peroxides

- 5.1 Oxidizing Substances
- 5.2 Organic Peroxides

### 6 Toxic and Infectious substances

- 6.1 Toxic substances
- 6.2 **Infectious substances**

### 7 Radioactive materials

### 8 Corrosives

### 9 Miscellaneous Dangerous Goods including dry ice and non-pathogenic genetically modified organisms



## Classification of Division 6.2 Infectious Substances

Proper classification of infectious substances requires knowledge of the following definitions:

### Infectious Substances

Infectious substance means a material **known or reasonably expected to contain a pathogen**. A pathogen is a microorganism (including bacteria, viruses, rickettsiae, parasites, fungi) or other agent, such as a proteinaceous infectious particle (prion), that can cause disease in humans or animals. (49 CFR 173.134 (a) (1), TDGR 1.4, ICAO 2;6.3.1.1, IATA 3.6.2.1.1)

**Note:** The key aspects for the definition of infectious substances is the bold text "known or reasonable expected to contain". An infectious substance is a substance that is known or reasonable expected to contain a micro-organism which can cause disease in humans or animals. Therefore, at this time plant pathogens are not considered infectious by the transport regulations.

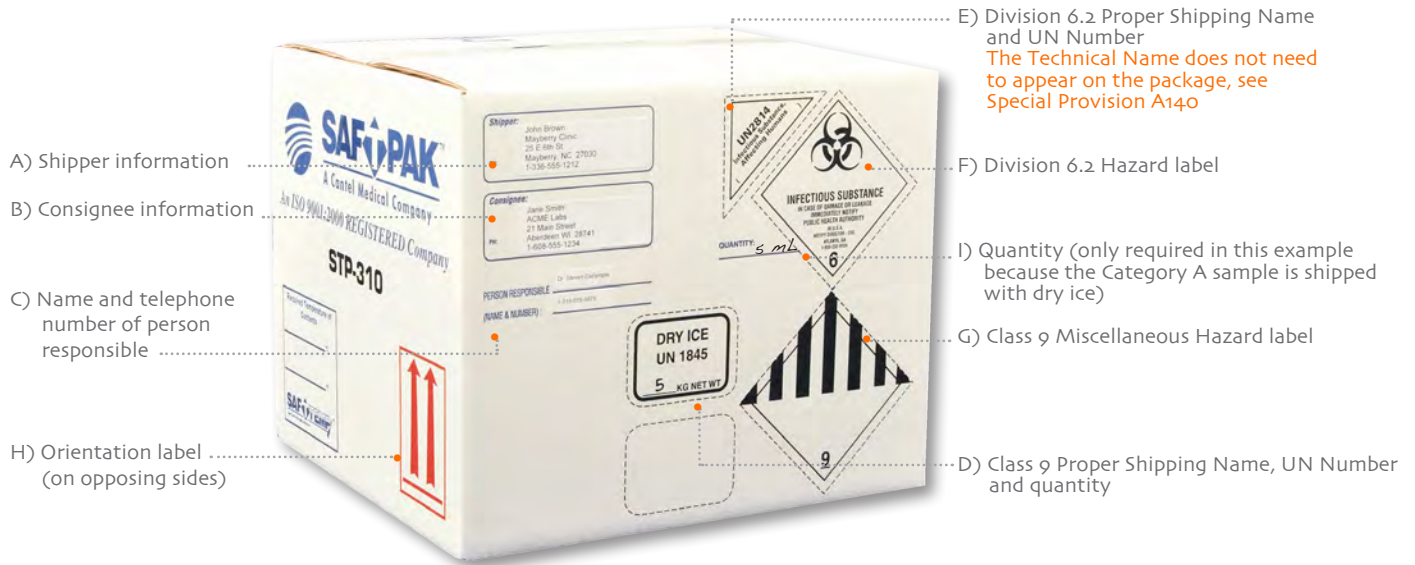
All regulated infectious substances are divided into two different forms: Cultures and Patient specimens.

#### >> SAF-T-TIP

- The following terms:
- Class 6.2
  - Division 6.2
  - Class 6 Division 6.2
- are equivalent in meaning.

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## Example of a Category A Shipment with Dry Ice



## Example of a Category B Shipment with Dry Ice



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## Detailed Instructions for Completing the Shipper's Declaration

**SHIPPER'S DECLARATION FOR DANGEROUS GOODS**

**Shipper**  
John Doe  
55 Main Street  
Annapolis, MD 21401  
USA  
(410) 555-1234

**Air Waybill No.**  
Page 1 of 1 Pages

**Shipper's Reference Number**  
*(Optional)*

**Consignee**  
Jane Smith  
1234 Center St  
Winnipeg, MB R2C 2T6  
Canada  
(780) 123-4444

**SAFPAK™**  
A Cantel Medical Company

*Three completed and signed copies of this Declaration must be produced. One is retained by the shipper and two handed to the operator.*

**TRANSPORT DETAILS**  
The packages in this shipment are within the quantity limitations prescribed for: *(strike-out non-applicable)*

**Airport of Departure:**

PASSENGER AND CARGO AIRCRAFT  ~~CARGO AIRCRAFT ONLY~~

**Airport of Destination:**

**WARNING**  
Only trained and certified shippers can sign this form. Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

**Shipment type:** *(strike-out non-applicable)*  
NON-RADIOACTIVE  ~~RADIOACTIVE~~

- **SHIPPER** – Enter the full name and address of the shipper. A phone number is not required, but is recommended.
- **CONSIGNEE** – Enter the full name and delivery address of the consignee (no P.O. boxes). A phone number is not required, but is recommended.
- **AIR WAYBILL NUMBER** – Enter the Air Waybill number, if it is known. This box may be left blank as the operator may enter or amend it as needed.
- **PAGE \_\_\_ OF \_\_\_ PAGES** – This refers to the number of pages needed to record or list all of the dangerous goods in the consignment, not the number of copies. For infectious substance consignments, this should always be "Page 1 of 1 Pages" since other dangerous goods (with the exception of those dangerous goods from Class 3, 8 and 9 discussed on page 39 of Chapter 5) are not allowed to be shipped in the same consignment and there should be plenty of room in the Nature and Quantity of Dangerous Goods box for all the necessary information.
- **AIRCRAFT LIMITATION** – Strike out the non-applicable information. For example, if any package in the consignment exceeds the quantity limits for Passenger Aircraft (50 mL for Category A) the shipper **must** cross off "Passenger and Cargo Aircraft" box.
- **AIRPORT OF DEPARTURE** – Enter the full name of the airport or city of departure, if it is known. This box may be left blank as the operator may enter or amend it as needed.
- **AIRPORT OF DESTINATION** – Enter the full name of the airport or city of destination, if it is known. This box may be left blank as the operator may enter or amend it as needed.
- **SHIPMENT TYPE** – Strike out the non-applicable shipment type. In this case, cross out "Radioactive".

## Nature & Quantity of Dangerous Goods

The information in this section should be transcribed from the List of Dangerous Goods.

**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 Inst.	Authorization
UN 2900	Infectious Substance, affecting animals (Foot and mouth disease virus)	6.2		30 mL	620	
UN 1845	Dry ice	9		3 kg All packed in one Fibreboard box	954	