





SHIPPERS' PROGRAMME 2015-2016

Shipping Infectious Substances with Dry Ice

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Overview

- Proper Packaging

- ★ Exercise: Packaging with dry ice



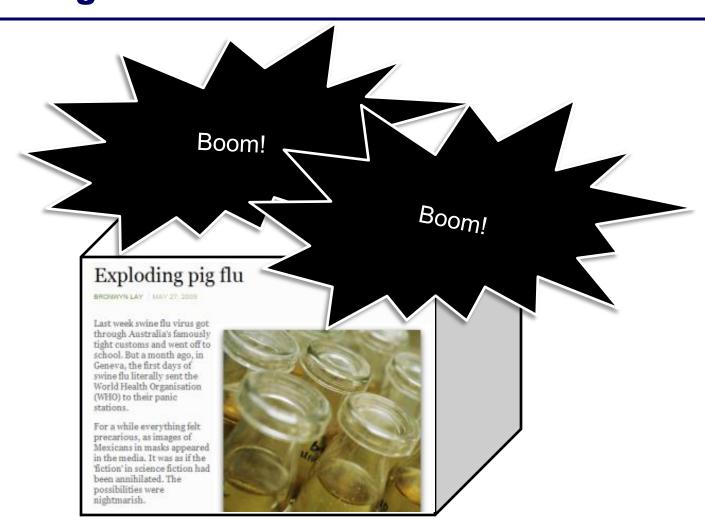
What happens when someone packs dry ice in a sealed container?



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Not a good idea!





Important issues when shipping with dry ice



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Shipping with dry ice

- Samples which need to be kept frozen at -70 °C can be shipped using dry ice.
- ⊕ Dry ice is a dangerous good.
- ♦ Shippers using dry ice (Carbon dioxide, solid) must be trained.
- ♦ When shipping with dry ice, the miscellaneous dangerous goods label is required.
- Shippers must properly mark and label the outside of packages containing dry ice.
- Appropriate documentation should discuss the presence of dry iCe (for Category A this information will be included in the Dangerous Goods Declaration. For Category B and Exempt packages this information should be provided on the Air Waybill).





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Shipping with dry ice (continued)

- ♦ The very low temperature (-79 °C) of dry ice can cause severe burns to skin upon direct contact.
- ₱ Packages containing dry ice must be designed and constructed so as to prevent the build up of pressure and allow the release of gas which could rupture the packaging.
- Substances shipped with dry ice are packaged in primary receptacles and secondary packagings capable of maintaining their integrity at such low temperatures



What markings and labels are needed when shipping with dry ice?

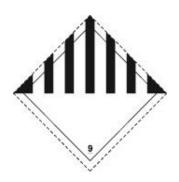


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Marking and labelling frozen shipments containing carbon dioxide, solid (dry ice)

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Packages containing dry ice must be properly marked and labelled for all who may come in contact with the package during the shipping process.



Dry ice (Carbon dioxide, solid) label

This label should be placed on the outside of any package containing dry ice.

Label name: Miscellaneous dangerous substances

Minimum dimensions: $100 \times 100 \text{ mm}$ (for small packages: $50 \times 50 \text{ mm}$)

No. of labels per package: 1

Colour: Black and white

dry ice as coolant UN1845

Net quantity ____kg

Dry ice (Carbon dioxide, solid) marking

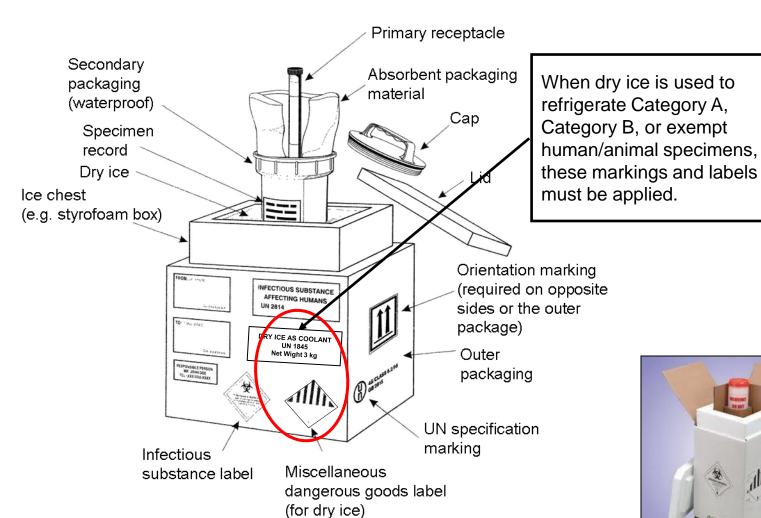
The PSN of dry ice must be followed by the words 'as coolant'. The net weight of the dry ice must be marked on the outside of any package containing dry ice.





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Markings and labels for dry ice







What documentation is needed when shipping with dry ice?



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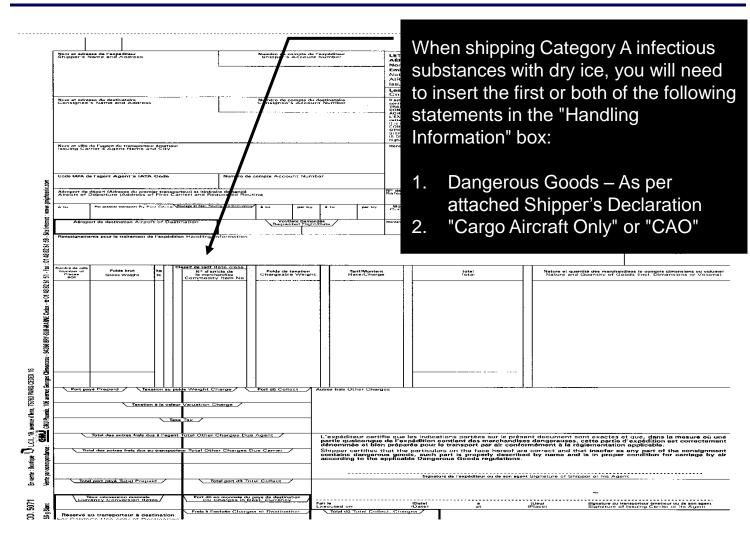
Air waybill or DGD?

- ★ For Category A shipments, the presence of dry ice is listed on the DGD. No additional information is needed on the air waybill
- For Category B or exempt shipments, the presence of dry ice must be mentioned on the air waybill





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Shipping Infectious Substances with Dry Ice

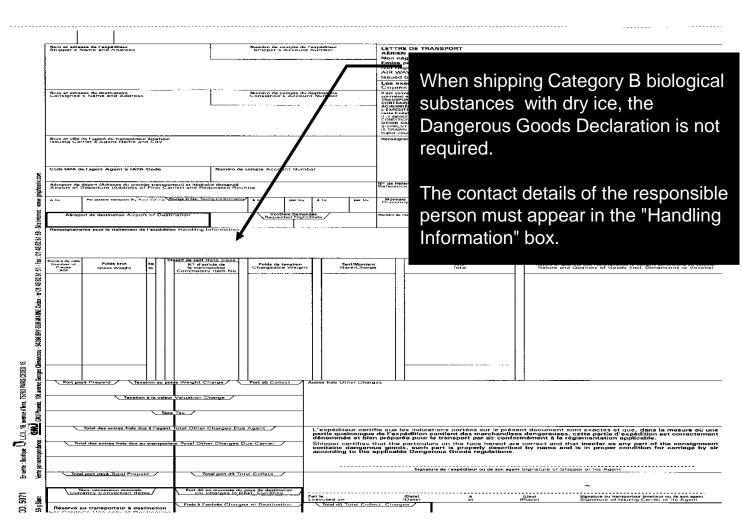
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Shipping Infectious Substances with Dry Ice

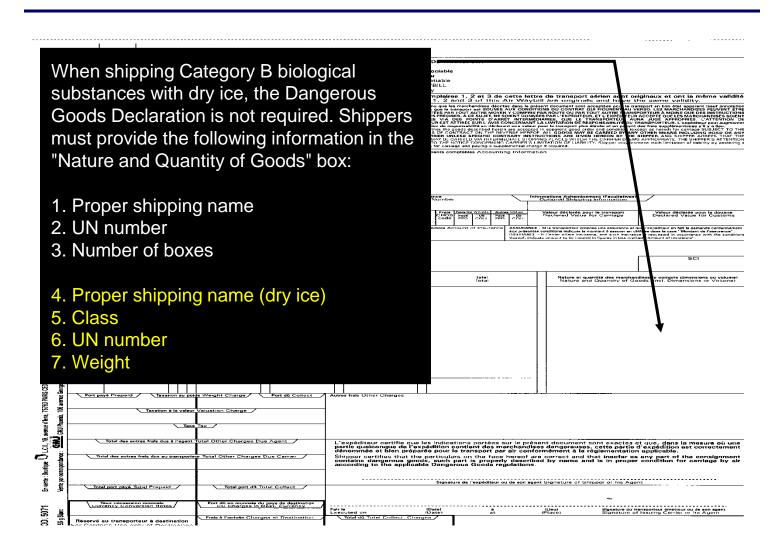
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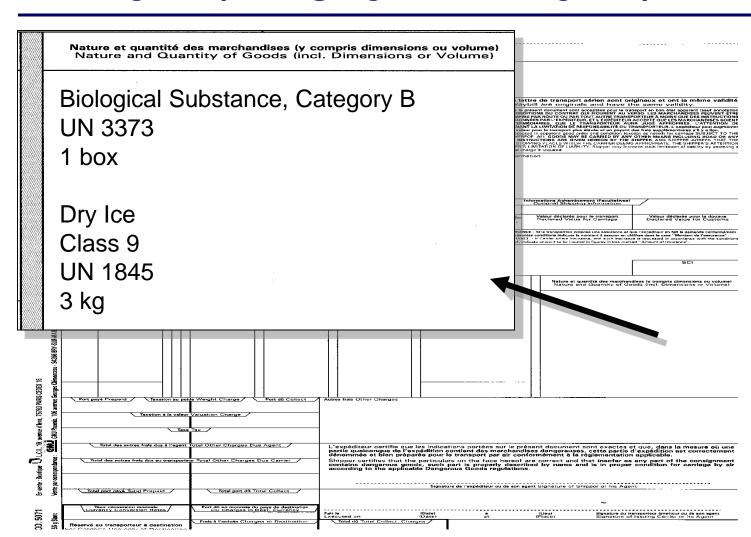
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World Health Organization







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Air waybill (Exempt with dry ice)

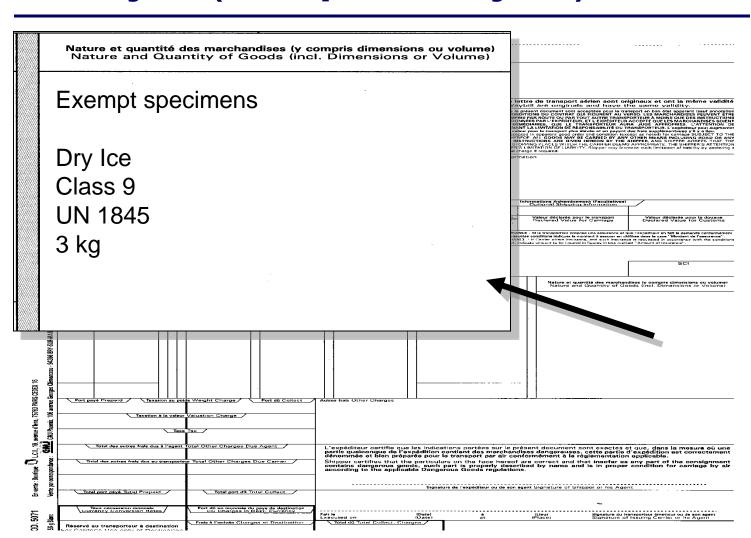
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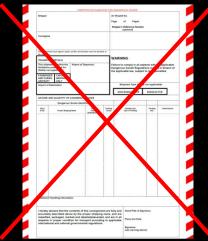
Air waybill (Exempt with dry ice)





Samples classified as Category B or Exempt do not require the Shipper's Declaration for Dangerous Goods...

even when dry ice is used for refrigeration!



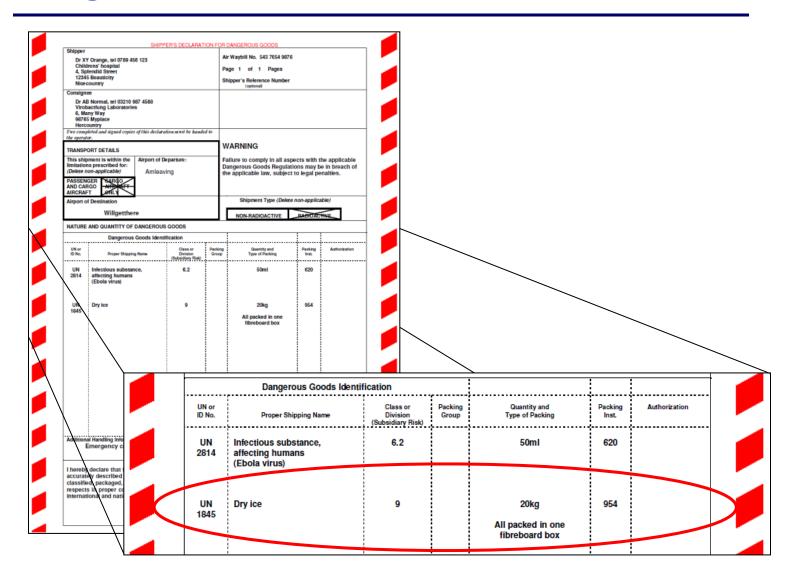


What additional information needs to be provided on the Shipper's Declaration for Dangerous Goods when shipping Category A samples with dry ice?



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Dangerous Goods Declaration (Category A)



World Health Organization





Summary of requirements for shipping samples with dry ice

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Category A (P620) UN 2814 - Infectious Substance affecting Humans UN 2900 - Infectious Substance affecting Animals Only	Category B (P650) UN 3373 - Biological Substance, Category B	Exempt Exempt Human Specimen Exempt Animal Specimen
P620 + P954	P650 + P954	Minimal triple packaging + P954
Shipper must be trained (dry ice is a dangerous good)	Shipper must be trained (dry ice is a dangerous good)	Shipper must be trained (dry ice is a dangerous good)
Markings and labels	Markings and labels	Markings and labels
Shipper's Declaration for Dangerous Goods		
Air waybill for air transport	Air waybill for air transport (Name and Tel of a responsible person to be placed on box or on air waybill)	Air waybill for air transport
Import/export permit (if required)	Import/export permit (if required)	Import/export permit (if required)
Weight and volume limitations for infectious substances, Category A and for dry ice	Weight and volume limitations for biological substances, Category B and for dry ice	Weight and volume limitations for dry ice



Exercise Packaging infectious substances with dry ice





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Provided supplies

- ♦ 2 Category A samples in primary containers
- Rubber bands
- Absorbent material

- Disinfectant

Global Capacities Alert and Response





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SOP for packaging with dry ice

Step	Practice
1	Open outer container
2	Remove secondary container
3	Open secondary container
4	Insert absorbent material
5	Put on gloves
6	Wrap cushioning material around primary container
7	Place sample into secondary container
8	Remove gloves
9	Close secondary container
10	Wrap itemized list of contents and laboratory test instructions around secondary container
11	Place secondary container into designated space in outer container
12	Fill outer container with dry ice (ensure dry ice is placed OUTSIDE of the secondary receptacle because of the risk of explosions)
13	Close outer container
14	Ensure proper labelling and marking, especially with dry ice

Global Capacities Alert and Response



Questions and comments