

SHIPPING DRY ICE

Introduction

Many perishable items, such as food, medical shipments or non-hazardous chemicals, are shipped with dry ice as a refrigerant. As long as the dry ice is not chilling a dangerous good (as defined by the U.S. Department of Transportation or the International Air Transport Association), the procedures for shipping are straightforward and easy. When a *company* ships dry ice the shipment must be prepared by an employee **trained** in the Dangerous Goods regulations. For information or to register for FedEx Express Dangerous Goods Seminars, go to fedex.registration.meetingevolution.net.

Before You Prepare Your Shipment

When shipping internationally, call FedEx International Customer Service at 1.800.GoFedEx 1.800.463.3339 and say "international services" to check commodity acceptability by service and origin in combination with the destination city/postal code/country. Some service limitations also exist for Alaska and Hawaii. Call 1.800.GoFedEx 1.800.463.3339 for more information.

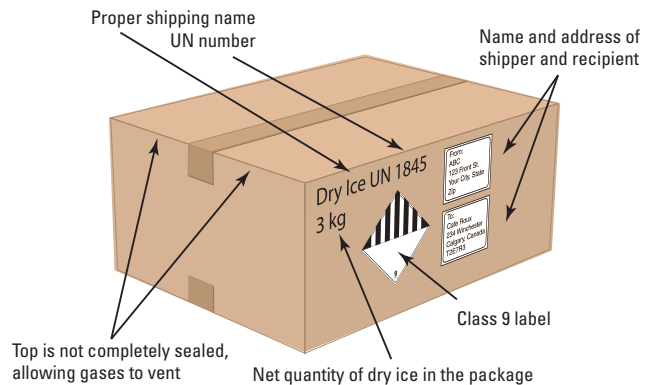
How To Prepare a Dry Ice Shipment

1. Package

- Dry ice releases carbon dioxide gas which can build up enough pressure to rupture the packaging. You must ensure the packaging you use allows the release of this pressure to prevent rupturing the package. For example, do not use steel drums or jerricans as outer packaging, and do not place dry ice within sealed plastic bags.
- Use good quality fiberboard (corrugated cardboard), plastic or wooden boxes. FedEx® packaging may not be used.
- A layer of Styrofoam within a box works well as insulation. Ensure the styrofoam IS NOT sealed to be airtight.
- Styrofoam must not be used as an outer packaging unless it has been preapproved by FedEx Packaging Services (1.800.633.7019).
- The maximum amount of dry ice per package is 200 kg.
Exception: Overpacks containing dry ice and shipments which meet Special Provision A151.

2. Mark

- The following package markings are required:
 - a. Dry Ice (or Carbon Dioxide Solid)
Note: The Proper Shipping Name, namely Dry Ice (or Carbon Dioxide Solid) must be on the same surface of the package as the hazard label or Class 9 label, when package dimensions are adequate.
 - b. UN 1845
 - c. The net quantity of dry ice in the package or overpack, in kilograms (1 kg = 2 lb).
- The name and address of both the shipper and recipient must be durably marked. This information can be marked on the package



**All self-adhesive labels must be affixed directly to the package.
Do not place labels in, or on, a plastic pouch.**

itself, or you can mark the shipper and recipient information in the address blocks of the FedEx Express Dry Ice label with a magic marker or pen.

- The shipper and recipient markings are satisfied when the self-adhesive FedEx Express electronic shipping label has this information preprinted on it.

New Minimum Marking Sizes

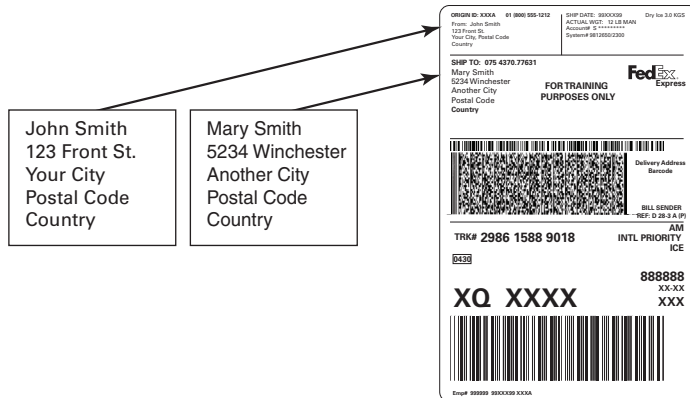
- Package capacity > (greater than) 30 KG
- requires 12 mm type or larger for UN 1845
- Package capacity > 5 KG up to 30 KG
- requires 6 mm type or larger for UN 1845
- Package capacity < (less than) 5 KG
- requires the package marking UN 1845 to be of adequate size
- Other package markings and overpack used markings should be 12 mm or larger if package capacity is greater than 30 kg, 6 mm or larger for package capacity at 30 kg or less.

UN 1845 (12 mm)
UN 1845 (6mm)

NOTE: If using a Dry Ice label with preprinted UN number, please handwrite the UN number to ensure appropriate marking size for package capacity.

Acceptable as Shipper and Recipient Markings:

- Addresses completed on the FedEx Express Dry Ice label.
- FedEx Ship Manager® self-adhesive electronic shipping label (with both addresses) placed directly on the package.
- Peel-and-stick FedEx Express Package US Airbill attached directly to the package.
- Package durably marked with both addresses with a magic marker or pen.
- Separate self-adhesive label(s) with addresses handwritten or typed/computer generated.
- A piece of paper with both addresses taped to the package with clear package tape. Entire surface of the paper must be taped.

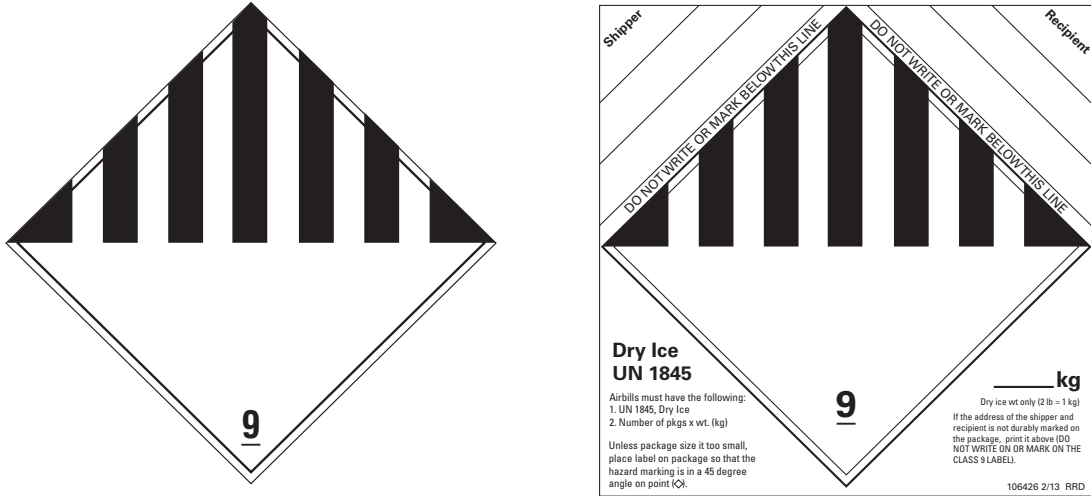


Unacceptable as Shipper and Recipient Markings:

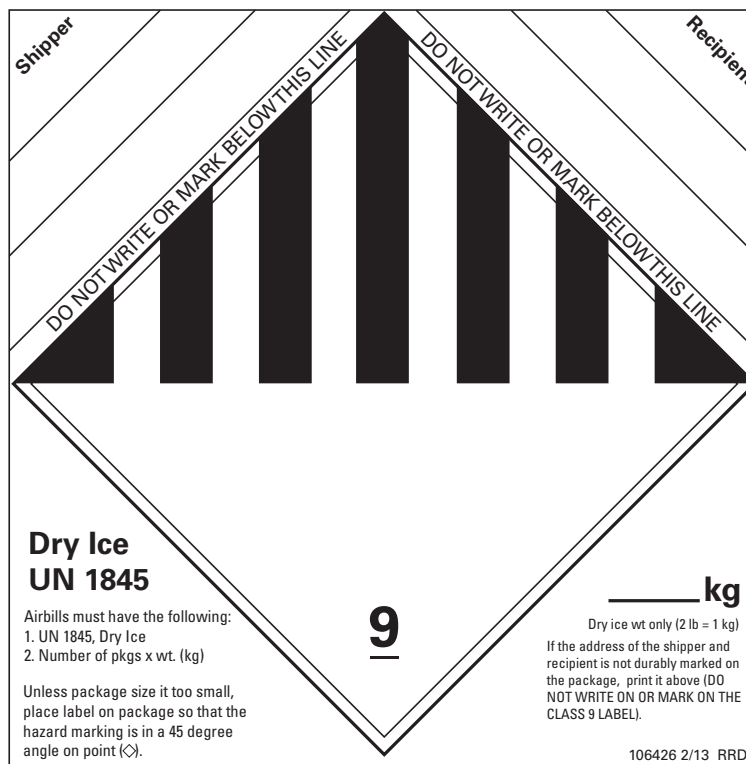
- A paper airbill or sheet of paper from a FedEx electronic shipping device attached to the package in a pouch.
- A FedEx Ship Manager electronic shipping label attached to the package in a pouch, or placed on top of a pouch.

3. Label

- A Class 9 label is required. Do NOT write inside the diamond border of the label.
- The label may be attached to the package by means of a strong tag.
- Special FedEx Express Dry Ice labels are available free of charge by calling 1.800.GoFedEx 1.800.463.3339. These labels greatly simplify the marking and labeling process.



Note: the labels have SEVEN vertical stripes.



4. Prepare Paperwork and Complete Final Steps

- The following are required airbill entries for shipments of dry ice when refrigerating non-dangerous goods:
 - ~ If a paper airbill is used, check "Yes, Shipper's Declaration NOT Required."
 - ~ UN 1845, Dry Ice, ___ x ___ kg (where the first blank is the number of packages and the 2nd blank is net quantity in kilograms)
 - ~ When FedEx Ship Manager electronic shipping software is used, this information is entered on-screen and prints on the thermal label.

Note:

U.S. customers may now purchase the International Air Transport Association (IATA) DG regulations from FedEx Express and charge the cost to their FedEx account number. This service is provided as a convenience to our Express DG customers.

- Ensure all the required DG markings and labels are not obscured by opaque tape or tape with company logos, pouches, or labels (including service labels).
- To schedule pickups, find drop-off locations for dry ice, or to get rates, call 1.800.GoFedEx 1.800.463.3339.

Helpful Resources

- To purchase the current calendar year International Air Transport Association (IATA) DG regulations go to www.iata.org.
- The following URL is for the Perishable chapter of the FedEx "How to Pack" brochure: images.fedex.com/us/services/pdf/packaging/Perishables_fxcom.pdf
- If you have questions about the requirements for your dry ice shipment, call the FedEx Dangerous Goods/Hazardous Materials hotline at 1.800.GoFedEx 1.800.463.3339, and press "81" then "4" or say "dangerous goods".

DISCLAIMER

Proper training is required under federal, state and/or international regulations to handle, ship, package or transport dangerous goods and/or hazardous materials. All persons and entities must comply with all federal, state, or international governmental regulations and requirements including, if applicable, the specific training requirements of 49 C.F.R. (172.700 – 172.704). FedEx Express provides materials and advice as a courtesy, to be used as guidelines to assist properly trained shippers. The information provided by FedEx Express in no way alters, satisfies or influences any federal, state or international governmental requirements. The information provided does not meet the training requirements as required by regulations, including DOT 49 C.F.R. The study and/or use of this information does not qualify an individual to prepare, package, transport or otherwise handle dangerous goods or hazardous materials. The information contained in this document is subject to change or update due to changing government regulations. The user of this information assumes responsibility for complying with all applicable laws and regulations regarding the shipment of dangerous goods. FedEx Express shall not be held responsible for any loss, injury and/or damage caused by errors, omissions, misprints or misrepresentations of the contents of this document or for any unauthorized or inappropriate use.