Shipping Procedures

1. Verify that the containers (i.e., valves, plugs, reliefs) and drum bungs are not leaking. Install plastic valve caps to prevent foreign material from entering the valve.

2. Complete the bill-of-lading (BOL) either online or by calling 877-662-4322. Affix proper tags and labels to your cylinder including (1) a refrigerant i.d. tag and (2) shipping label.

3. All containers must show the proper UN1078, shipping classification and display the Class 2 “Non-flammable Gas” symbol. NOTE: DuPont shipping labels include the Non-flammable Gas symbol, ref: H-52108 shoulder label or H-66070 half-ton refrigerant tag.

4. All cylinders and drums must be put on a pallet that is stable and in good condition as follows. All shipments must be properly blocked and braced as outlined in DOT 49CFR, part 177.840. NOTE: Stretch film over banding and low enough to go around the pallet if it is available, but do not use film as a replacement for nylon bands.
   - 96- and 123-lb cylinders must be shipped horizontally using scalloped pallets and separators with no more than two layers of four cylinders each, for a maximum of eight cylinders per pallet. Double band the cylinders to the pallet at both the front and the rear of the pallet.
   - 10- and 20-gal drums must be shipped upright with no more than one layer of nine drums—do not double stack. Double band the drums at the bottom and top.
   - 30-lb cylinders: 20 cylinders per row for a maximum of 40 cylinders per pallet.
   - 50-lb cylinders: 12 cylinders per row for a maximum of 24 cylinders per pallet. Two (2) bands horizontally around each layer of cylinders at each end and two bands vertically through to the pallet at both ends to secure the cylinders to the pallet.
   - 55-gal drums must be shipped upright with no more than one layer of four drums.
   - Specialty containers such as the 8, 20, 24-lb water capacity should be consolidated together and shipped on a separate pallet.
   - Half-tons must be shipped upright and secured using required chocking and bracing practices.

5. Verify the quantity, size and type of cylinders and drums to be shipped. Complete the BOL, forward to DuPont and make two (2) copies: attach one to shipment as packing slip and give one to the driver.

6. With the driver, verify quantity, size and type of cylinders to what is listed on BOL. Obtain driver signature.

Bill of Lading Preparation

Complete the BOL either online or by calling 877-662-4322 and forward to DuPont. Our transportation group (TONA) will contact you with a Return Authorization (RA) # and assign an approved carrier. The BOL must be completed with the following information:

- Return Authorization (RA) #
- Name of carrier after assigned by TONA
- Date
- Company name, contact name and phone number, and address
- Signature of shipping company’s representative on “Signature of Consignor” line in Freight Collect box
- Fill in cylinder size, quantity, and total gross weight next to refrigerant listed (R-22, R-410A, etc.) to the extent known
- Quantity, type and pressure rating of containers
- Gross product weight in pounds (the gross product weight includes the weight of the containers, except for tank trucks)
- List quantity of cylinders by cylinder size at bottom if available. This is required for Cylinder Swap customers only.
- SEE Placard Requirements for Shipping Used Refrigerants K-20169 to determine placard and marking requirements.
- DOT “Non-flammable Gas” placards are not required for shipment of used refrigerants R-11, R-113, or R-123 in any container size. DOT does not regulate these refrigerants except tank trucks of R-11 are regulated and require DOT placards. Shipments of the remaining used refrigerants may or may not require placards according to the following guidelines.
  - **Cylinders and Half-Ton Tanks:** If aggregate gross weight is more than 1,000 lbs, it meets the DOT definition of a bulk package and four DOT “Non-flammable Gas” placards with UN1078 must be given to the carrier. The driver should initial the BOL.
  - **Ton Tanks:** Requires four DOT “Non-flammable Gas” placards with UN1078 and must be given to the carrier. The driver should initial the BOL.
- If placards are required, confirm placards are placed on the truck. The driver must verify that the placards are placed on the truck and then initial the BOL.
- Sign as Shipper Name and date at bottom of form.
- Obtain driver’s signature and date at bottom of form.