

LTL Shipping Guide

The rules and regulations of interstate shipping can sometimes seem overwhelming. After all, there's much to understand to keep things running smoothly.

For instance, you need to know how your product is defined by the trucking industry, how it should be packaged or bundled, how to prepare your shipping documentation properly, and the right ways to package and secure your freight. You'll also want to evaluate carriers and the variety of options that are available to you for getting your freight to its destination as quickly and reliably as possible.

Some Important Basics: the NMFC

When it comes to getting your products to your customer (or to the showroom floor), one of the first things you need to consider is how your product is defined by the trucking industry.

In the world of interstate shipping, different types of products -- from chemicals to machine parts to toaster ovens -- are defined according to their makeup. Each product definition is called a *classification*. The class of your freight plays a prominent role in calculating how much your carrier will charge you for transporting it.

But how are freight classes determined? The many definitions or classes of freight are catalogued in the *National Motor Freight Classification* tariff, commonly referred to as the NMFC.

The NMFC is a publication for motor carriers containing rules, descriptions, and ratings of all commodities moving in commerce. The publication is used to classify freight for freight bill rating purposes.

Besides defining the classes of shipping commodities, the NMFC also assigns *item numbers* to each type of commodity. The item number is related not only to the commodity itself, but to its packaging, the material from which the commodity is made, and other considerations. Item numbers are associated with rates as well as commodity classifications.

With page after page of item numbers, commodity descriptions, and freight classes, the NMFC is an excellent reference book for the transportation professional. It describes not only shippers' responsibilities, but many of the responsibilities of carriers as well. Some of what the NMFC contains includes

- A list of carriers who participate in the NMFC
- Descriptions of each item/commodity
- Rules specifically for shippers
- Packaging requirements
- Rules for freight loss and damage claims

Freight Classes

So what do all these different freight classes mean?

As we mentioned, several elements, including value and density, determine the classification of a commodity.

Take ping pong balls, for instance. Ping pong balls are class 500 (the most expensive class) because of their density...or perhaps we should we say the lack thereof!

A carrier can fill an entire trailer full of ping pong balls without having much weight loaded. Since rates are based on weight and density, the rate for transporting ping pong balls is higher than it would be for something like heavy machine parts.

But even with very low-density freight, there are ways to reduce your rate charges.

Let's look at another example from the NMFC to see how you can lower your freight charges by accepting some of the risk (or limiting the value of your goods in the event of loss or damage).

Perfumes in barrels or boxes may be classified under NMFC item 59070, class 85. But NMFC note 60000 states that as the shipper, you may declare a "released value" in writing on the bill of lading. In this case, the released value of the property cannot exceed \$2.15 per pound. If you put this released value on the bill of lading at the time of shipment, your barrel of perfume's class will be reduced to class 70.

This means that you -- the shipper -- get a lower rate. In turn, your carrier has limited its liability to \$2.15 per pound should something happen to the shipment.

The lesson? Stating the released value of your goods on the bill of lading and accepting the associated protection tradeoffs can adjust your classification and get you lower rates.

How a Freight Rate is Calculated: How much will it cost?

Freight rates are based on many factors, including

1. The distance the shipment is moving
2. The shipment's weight
3. The density of the commodity being shipped
4. The commodity's susceptibility to damage
5. The value of the commodity
6. The commodity's loadability and handling characteristics

The last four elements (among other criteria) go into establishing the classification of a commodity. The NMFC, or National Motor Freight Classification tariff, contains all product classifications. There are eighteen possible classes ranging from 50 to 500. The higher the class, the higher the rate for every hundred pounds you ship.

Most less-than-truckload rates are stated as a rate per hundred pounds, or per *hundredweight*. Rates are structured so that as the weight of your shipment increases, the rate per hundred pounds decreases.

For example: a shipment weighing 100 pounds may cost \$41.00 per hundredweight, while a heavier shipment--say, 500 pounds--of the same commodity (moving to the same destination) may only cost \$35.00 per hundredweight. But doing the math, we see that the total charges for the 500 pound shipment are higher (5x\$35 is greater than 1x\$41). For very light shipments, most LTL carriers state a minimum charge.

This sample rate matrix illustrates how a carrier's rate table might look for rates between two zip codes. Weight breaks are indicated across the top. The classes are listed down the left side.

MATRIX OF WEIGHT BREAK AND FREIGHT CLASS

Class	15C	5C	1M	2M	5M	10M	≥ 20M
50	34.30	28.32	24.25	23.04	17.58	15.74	10.47
55	36.94	30.50	26.12	24.82	18.93	17.41	11.58
60	39.59	32.69	27.99	26.60	20.29	19.08	12.69
65	41.94	34.64	29.66	28.18	21.49	20.27	13.48
70	44.64	36.86	31.56	29.99	22.88	21.94	14.59
77.5	48.10	39.72	34.01	32.32	24.65	23.85	15.86
85	51.90	42.86	36.70	34.87	26.60	26.24	17.45
92.5	55.89	46.15	39.52	37.56	28.64	28.38	18.87
100	60.27	49.77	42.61	40.50	30.89	30.77	20.46

Note in the sample matrix how the rates increase as the class goes up. Also note how the rates decrease as the weight break increases. There is a similar rate table for every origin/designation zip code combination serviced by a carrier

Before You Send Your Goods...

No matter which carrier you select to transport your goods, taking a few important steps before a driver arrives for pickup can keep business running smoothly:

1. Prepare your packaging

Secure packaging helps ensure trouble-free shipping. All goods should be protected with proper packaging in compliance with the NMFC. When loading pallets, make sure to follow the ideas found under [*Preparing Your Package*](#).

2. Label every piece clearly and completely

Complete names and addresses on each piece are needed to ensure that packages in your shipment arrive intact. Label placement is important too. (For hints, take a look at the examples under [*Proper Labeling*](#).)

3. Complete a bill of lading

The bill of lading is a legal contract between you, the shipper, and the carrier. It should state exactly what is being shipped, where it's coming from and where it's going to, etc. A completed [*sample bill of lading*](#) is found later in this guide.

4. Select a carrier

Selection criteria are often based on the goods you are shipping, the services your carrier can provide, where your shipment is going, the date by which the shipment should arrive, and the cost of these services. You must evaluate the options based on your company's needs.

5. Place a pickup order

Most carriers will receive your telephone call requesting a pickup and have a truck at your location that same day or possibly the next. The carrier will probably ask where the shipment is going, how much it weighs, if it is ready to be picked up, how late the shipment can be picked up, and who is paying the charges. Hint: Call early in the morning to increase your chances of a same day pickup.

Preparing Your Package

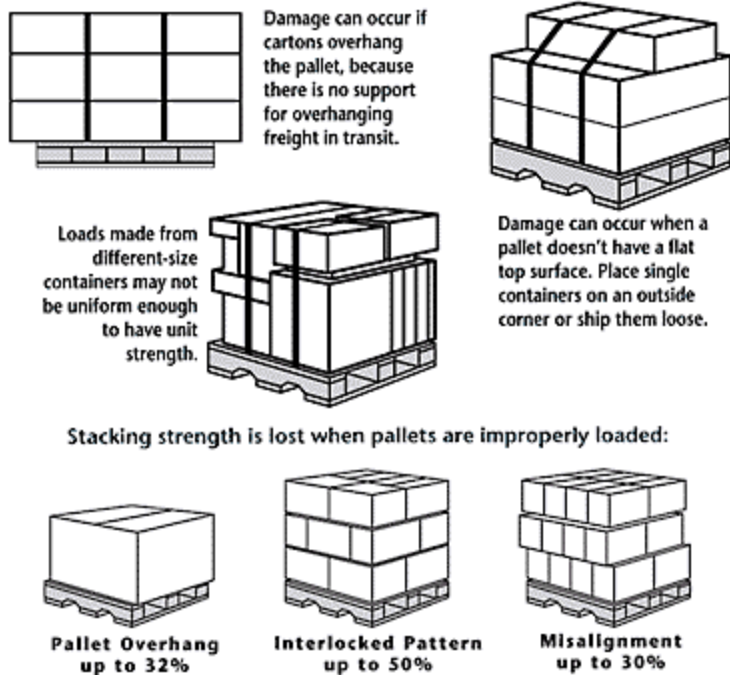
Proper packaging is a must.

Don't ship your goods without proper protection. Many claims and damages arise from improper packaging -- and packaging errors may eliminate your carrier's liability.

The picture below should help you visualize how to best package and secure your goods.

When possible, heavy, bulky items should be placed on pallets for improved handling. To maximize carton strength, stack cartons on the pallet vertically. You can secure cartons to a pallet with banding, shrink-wrap, stretch-wrap, or breakaway adhesive.

Cartons should be stacked squarely on the skid, with no overhang. Box flaps and corrugations should face up. Be sure the top surface is flat.

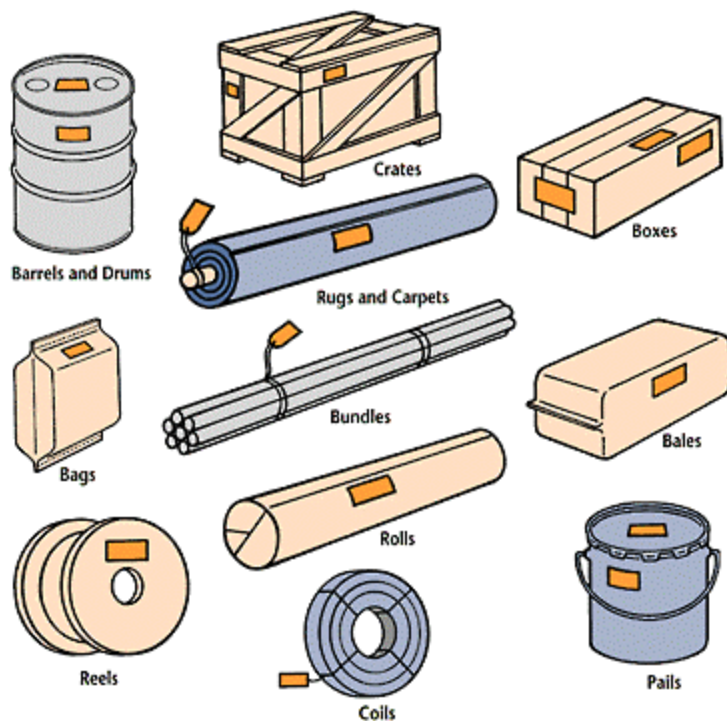


Following these general packaging guidelines is one of your best bets to help ensure trouble-free shipping.

Proper Labeling

Shipping labels must be placed on every piece of your shipment. The shipper and consignee information must match the bill of lading information *exactly* and your labels must be legible and complete.

Ideally, you should place labels securely on both the long and short sides of each piece. DOT hazardous material labels are required when shipping DOT hazardous materials. Unless specifically provided for elsewhere in the NMFC, address markings must be located approximately as shown in the following examples. The location shown indicates the top, a side, or an end.



Bill of Lading

Your bill of lading is an important document. It acts as a receipt for goods, a contract of carriage, and may act as a document of title (if order bill of lading). Take the time to fill out the bill of lading completely and correctly, since this will help ensure error-free delivery to your customer.

A correct bill of lading also ensures an accurate invoice for you (if your company does not have its own bills of lading, you may purchase them from a local office supply dealer or call your **ADC Technologies** and inquire about obtaining some).

The sample bill of lading below will help you fill yours out correctly:

1 & 2. Clearly print the shipper's and receiver's names and complete addresses where indicated (the receiver is also called the consignee). Be sure to include ZIP codes

3. You may want to include special notes or markings, including:

- Special account numbers used internally at your company.
- Purchase order numbers from your customer.
- Special instructions for the carrier to ensure prompt delivery. *Check with your carrier to determine if your "special instructions" will result in additional charges.*

4. You may also insert any reference number (such as a bill of lading number) you want to use for internal purposes.

5. Enter the date you are giving the shipment to the carrier.

6. Enter the number of shipping units. This is the number of individual pieces actually being shipped. (If the pieces of a shipment are secured so that the individual pieces cannot be separated from one another, you have one shipping unit, no matter how many pieces are in the shipment.)

7. Enter the type of packaging (typical packaging includes cartons, skids and drums).

8. You must place an X in the "HM" column if a commodity is a Department of Transportation hazardous material. Special rules and requirements apply to hazardous commodities. Please contact your local carrier to discuss shipping hazardous commodities.

9. Write a description of the articles. Include the material of manufacture and common name. Remember, DOT hazardous materials have many special requirements. Contact your carrier to determine the specifications for your product.

10. Include the NMFC item number. Consult the NMFC for proper item description and number. The carrier will identify the classification for you and your freight charges will be based upon that.

11. Enter the correct weight of the shipment. If multiple commodities are being shipped, then the weight of each commodity should be listed separately.

Receiving Freight: Clear Delivery

What about when you're on the other end of a freight move? Receiving freight can be as easy an operation as sending it if you follow a few steps:

1. Stay in contact with your supplier to find out when your shipment was shipped, what carrier it was given to, and an approximate arrival date.
2. On arrival, inspect the shipment immediately for obvious signs of damage.
3. Compare the actual number of handling units to the number listed on the delivery receipt.
4. Sign the delivery receipt.

The carrier's driver will help you receive your shipment and answer your questions. While your driver is there, compare the pieces of freight you are receiving to your carrier's freight bill. When you've determined that the condition and quantity of your freight is acceptable, the driver will ask you to sign the delivery receipt. The driver will provide you with a copy, taking the signed copy with him (as a delivery receipt) for his employer's records.

When a carrier receives a signed delivery receipt with no **exceptions**, it is called a "clear delivery." Clear deliveries generally mean everything went smoothly: success both for shippers and for consignees.

An invoice for the shipment will be sent to the appropriate party soon after pickup or delivery has been made, depending on whether the shipment is prepaid or collect. Questions regarding the amounts shown on the bill should be directed to your carrier. If you feel you have paid too much, contact your carrier and ask to file an overcharge claim.

If a shipment is either **short** or **damaged**, you should still accept the delivery. It's the duty of the shipper and the consignee to mitigate the loss. After you accept the shipment, take steps to protect the shipment from further loss and file a claim for the actual shortages or damages involved promptly.