

# Hazardous Materials Transportation

Your guide to transfer station transport of hazardous materials and hazardous waste.

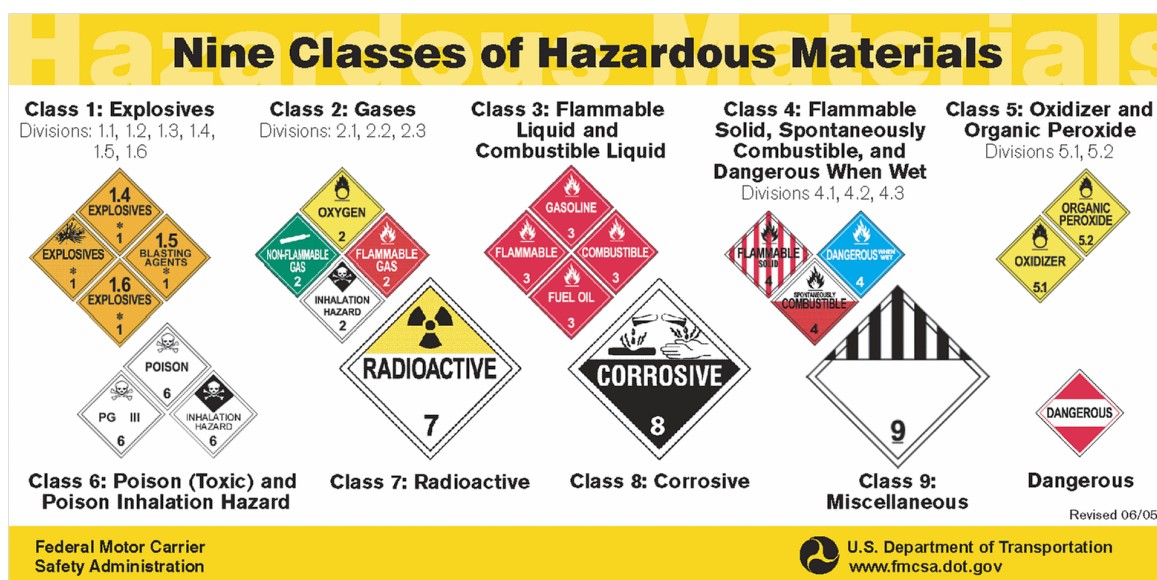
## Hazardous Materials Transportation

Hazardous materials are substances that pose an unreasonable risk to health, safety, and property when transported in commerce, and have been designated as hazardous under the federal hazardous materials transportation law (49 U.S.C. 5103). During disposal, these materials should be managed as hazardous waste and involve additional management and shipping paper requirements.

Transfer stations handle hazardous materials or hazardous wastes delivered by customers or found in solid wastes delivered to the facility. Maintenance and other facility operations may handle hazardous materials such as fuels, motor oil, and lubricants.

## U.S. Department of Transportation Hazard Classes

Department of Transportation (DOT) classifies hazardous materials into nine hazard classes to ensure safe handling and transportation – transportation requirements vary based on the material's hazard class designation. The [Hazardous Materials Table \(HMT\)](#) in 49 CFR 172.101 details each material's designation.



Department of Transportation hazardous materials classes

## Transport Preparation

Transportation of hazardous materials and wastes from the transfer station must comply with packaging, transport, and recordkeeping requirements. Tribes may be able to provide transportation themselves to local household hazardous waste facilities or other collection facilities; if so, they should contact those facilities for their requirements and limitations on material types and quantities. Hazardous waste contractors may be hired for transport and can provide their requirements on packaging, transport options, and documentation.

## Transport Organization

Recommendations for load organization include:

- ✓ Sort wastes into containers by compatibility and by DOT hazard classification.
- ✓ Separate incompatible materials by less hazardous wastes; for example, latex paint can serve as a buffer as shown in sample load organization.
- ✓ Secure load to prevent movement during transport.

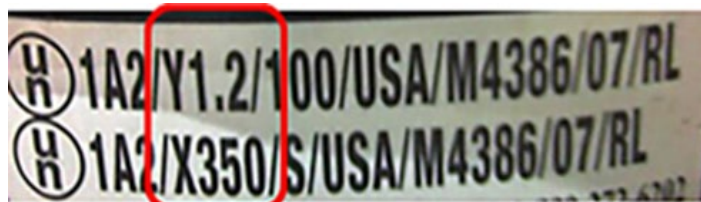


Sample load organization

## Packaging

For recycling, treatment, or disposal, hazardous materials and wastes must be shipped offsite. In most cases, hazardous materials transported from small-scale transfer stations are placed into drums or boxes. These are considered non-bulk packagings, at a maximum capacity of 450 liters or 119 gallons.

In many instances, containers for storing hazardous materials or wastes may also be used for transport. These DOT-approved containers include plastic or steel drums, fiber boxes, and pallets, and are marked with United Nations (UN) packaging codes for the type of container material and maximum



Example UN packaging code

container weight. For example, the UN Label depicted above indicates the maximum weight capacity for the container is 350 kilograms or 770 pounds. Exceeding that maximum weight is unsafe and illegal.

Tips for packaging common hazardous materials for transport from transfer stations include:

- ✓ Latex paint, electronics wastes, and fluorescent lamps do not require any DOT-specific containers.
- ✓ Containers with liquids need to be packaged with absorbent materials.

Receiving facilities and transportation contractors can provide additional packaging guidance.

## Marking, Labeling, and Placarding

### Marking

Non-bulk packagings, such as drums and boxes, must be marked with the hazardous material's proper shipping name and identification number from the [HMT](#). The marking's text must be at least 12 millimeters (0.47 inches) high. Bulk packagings (a maximum capacity greater than 450 liters or 119 gallons), such as portable tanks or intermediate bulk containers, has additional marking requirements. Some hazardous materials have additional marking requirements, such as statements to keep the material away from heat, packaging orientation arrows, or an indication of a marine pollutant.

## Labeling

Labeling is required for a hazardous material in one or more hazard classes. The HMT identifies the proper label that indicates the hazard class, and the proper DOT label must be applied to the packaging.

## Placarding

Placarding is required when transporting 454 kilogram or 1,001 pounds or more of total weight all material, unless the material is classified as the following types: explosive (1.1–1.3), poison gas (2.3), dangerous when wet (4.3), organic peroxide (5.2), poison inhalation hazard (6.1), or radioactive (7). Placarding does not generally apply to transportation from a small-scale transfer station.

## Documentation

Shipping hazardous wastes requires some form of shipping document. Many hazardous wastes are sent on bills of lading or uniform hazardous waste manifests. Typically, bills of lading are for hazardous materials and less hazardous waste types (such as latex paint, electronics waste, and batteries). Manifests are for more hazardous waste and may be a requirement of the receiving facility. These documents have specific instructions for completion and requirements on circulation and timing.

Receiving facilities and contractors can provide information on the appropriate shipping document for each waste. Contractors usually provide the shipping documents needed for transport. Check with the contractor or receiving facility for additional information on completing the forms.

## Training Requirements

Employees involved in transporting hazardous materials and waste or preparing them for transport must take DOT-hazardous materials training on proper packaging and transportation every three years or when the requirements change. Employers must maintain training records. Contractors, including those that ship hazardous waste, can provide the training, and it can be in person or online.

## Additional Resources

- [How to Comply with Federal Hazardous Materials Regulation \(DOT\)](#)
- [Hazardous Materials Table \(Code of Federal Regulations\)](#)
- [Hazardous Materials Marking, Labeling and Placarding Guide \(DOT\), Chart 17](#)

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