

Teamsters Hazardous Materials Transportation Training Hazmat Transportation Safety and Security Awareness 2012 Edition

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Introduction

Hazmat Transportation & Security Awareness Training

The manual covers the topics that the U.S. Department of Transportation (DOT) requires for **hazmat awareness training** and **security awareness training** for workers involved in the transportation of hazardous materials, including hazardous waste. [DOT 49 CFR 172.704(a)]

This manual also covers the topics that the U.S. Occupational Safety and Health Administration (OSHA) requires for workers who may be **first responders at the awareness level** when an incident or release occurs involving hazardous materials. [OSHA 29 CFR 1910.120(q)(6)(i)]

This training is required if you are a hazmat employee, as defined in chapter 1 of this manual.

This manual was prepared by the Worker Training Program of the International Brotherhood of Teamsters - the Teamsters Union - with funds provided by the National Institutes of Environmental Health Sciences and Department of Transportation.

The International Brotherhood of Teamsters is a diverse union founded in 1903 that represents 1.4 million workers in transportation, construction, warehousing, and in almost every other type of employment.

The IBT Safety and Health Department includes professionals in safety, industrial hygiene and adult education.

The Teamsters offer safety and health training for:

- Hazardous Waste Workers
- Construction Workers
- Warehouse Workers
- Tankhaul Workers
- Airline Workers
- Transportation Workers
- Industrial Workers
- Emergency Responders

Teamster instructors have experience doing the same types of jobs that trainees perform, including hazmat transportation, warehousing, construction and hazardous waste remediation. Instructors use a combination of classroom lecture, participatory adult teaching techniques, and hands-on activities.

Prior to becoming an instructor for the IBT Worker Training Program, Teamster instructors complete a comprehensive training program that includes intensive classroom-oriented activities, supervised teaching and evaluation by a technical and adult education professional. Each instructor attends an annual Instructor Development Program that provides the participants with a regulatory update, revisions to the administrative procedures, and practical training on using adult education training techniques.

Teamster Training Centers are equipped with classrooms and mock sites located out-of-doors for realistic hands-on activities. Training Centers are also equipped with mobile units that are used to transport instructors training equipment, and supplies needed to conduct training courses at job sites, company facilities, local union halls, and other locations.

For more information, or to schedule a course, contact: IBT Worker Training Program 25 Louisiana Avenue, N.W. Washington, DC 20001 Phone: (202) 624-6963 Fax: (202) 624-8125 (fax) www.teamsterworkertrainingprogram.org

About Teamster Training



For More Information about Health and Safety Hazards

The **IBT Safety and Health Department** has many fact sheets about hazardous materials and other safety and health hazards. To obtain copies, go to the Teamsters internet site **www.teamster.org** and click on "Members" and then scroll down to "Safety and Health", and select "Factsheets" You can also call **(202) 624-6960** (EST)

The following websites are recommended as good sources of safety and health related information:

- US Department of Transportation (DOT Pipeline and Hazardous Materials Safety Administration: http://www.phmsa.dot.gov/
- US Occupational Safety and Health Administration (OSHA): http://www.osha.gov/
- National Institute of Occupational Safety and Health (NIOSH):

http://www.cdc.gov/niosh

• Center for Construction Research and Training http://www.cpwr.com

Also, you can go to one of the internet search sites and enter the name of a chemical, or a topic like "safety," "hazmat," or "shipping papers."

Notes:

Chapter 1



Hazmat Employee Training Requirements

Learning Objectives

Chapter 1 discusses the definition of a "hazmat employee", the agencies responsible for regulating hazmat, and the training requirements for hazmat employees.

- 1. **Identify** the types of jobs that hazmat employees perform.
- 2. **Define** hazmat employee.
- 3. **Identify** the five types of training required by DOT for hazmat employees.
- 4. **Identify** the DOT refresher retraining requirement.
- 5. **Inform** participants of the employer's responsibility to certify that the hazmat employees received training that complies with the DOT requirements.

This is how the U.S. Department of Transportation (DOT) defines **hazardous material**:

Hazardous material means a substance or material, which has been determined...to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce... [49 CFR §171.8]

In other words, hazmat means chemicals, radioactive materials, and biological materials that— if they leak or spill during transportation— could injure or kill people, damage property, or harm the environment.

Department of Transportation (DOT).

This is the federal agency that enforces regulations for safe transportation. The DOT also includes several administrations that enforce regulations for specific transportation modes. Most states have a state DOT agency that also enforces transportation regulations.

Department of Homeland Security (DHS).

This is the branch of the federal government that coordinates security efforts of governmental agencies throughout the country.

Transportation Security Administration (TSA).

This agency is part of the Department of Homeland Security. It is responsible for security in transportation. TSA makes the rules for background checks of commercial vehicle drivers who transport hazmat.

Occupational Safety and Health Administration (OSHA).

This federal government agency regulates safety and health in the workplace.

What does "Hazmat" Mean?

Government Agencies and Hazmat

DOT Hazmat Training Requirements

This training is in addition to the hazmat endorsement on your CDL. You must maintain that endorsement separate from this training.

Training is required for all hazmat employees. This includes full-time workers, part-time workers and "casual" employees.

Hazmat workers who have not received training as detailed above may work with hazmat under the direct supervision of another hazmat worker who is properly trained. If you do any of the following jobs, then you are a **hazmat employee** and your company is required to make sure you have **hazmat safety and security training**:

- Load, unload, store, or handle hazmat.
- Drive a vehicle that carries hazmat.
- Prepare hazmat for transportation.
- Supervise the transportation or storage of hazmat.
- Recondition or test hazmat transport containers.

DOT requires five types of training. [49 CFR §172.704(a)]

- **1. General awareness training**: General hazmat safety training (this course).
- **2. Function-specific training**: Site-specific training about DOT regulations that apply to your job.
- **3. Safety training**: Site-specific training about safety and emergency response procedures for the types of hazmat that your company handles.
- **4. Hazmat security awareness training**: General security training (this course).
- **5. In-depth hazmat security training**: Specific training that your employer must provide about the procedures in the companies written hazmat security plan.

The material in this manual provides **general awareness** training and **hazmat security awareness** training.

You must receive retraining at least every three years.

OSHA considers a driver, dock hand and other hazmat worker to be a **first responder at the awareness level**. This means that you might be the first person who notices an accident or spill. You need to know how to:

- Recognize an emergency.
- Identify the materials involved.
- Avoid exposure to the spill
- Contact the proper authorities.
- Warn others to stay away.

The material in this manual provides first responder-awarenesslevel training.[OSHA 29 CFR 1910.120(q)(6)(i)]

As a first responder at the awareness level, your only responsibility is to:

- 1. Protect yourself by leaving the area.
- 2. Warn others to stay away.
- **3.** Call the proper authorities.

Whom you summon depends on the emergency response plan that your employer has prepared. It might be your supervisor, an on-site hazmat team, or the fire department.

You are not allowed to actually try to contain a leak or spill unless you have additional "operations level" hazmat emergency response training.

The Teamsters provide operations-level emergency response training, but it is a separate course.

OSHA Training Requirements

This course does not provide operations level training.



Learning Objectives

Chapter 2 discusses the legal rights and responsibilities of workers and employers involved in transporting hazardous materials.

- 1. **Identify** the responsibilities of the shipper, carrier and driver with regard to the transportation of hazardous materials.
- 2. **Describe** the difference in jurisdiction between DOT and OSHA.
- 3. Respond appropriately if asked to perform unsafe work.



Hazmat Regulations

DOT also requires:

Training for all hazmat employees.

Background checks for hazmat drivers.

If your job involves hazmat transportation (for example, if you are a driver, dock worker, or if you prepare shipping papers) then you must be trained on the DOT rules for handling hazmat safely– and you need to follow those rules.

We will discuss the regulations for the subjects shown at the bottom of this page.



Rights and Responsibilities

Responsibility

The Carrier's **Responsibility**

Chapter 2

The shipper is the company that sends hazmat from one place to another. The shipper is responsible for:

- Assigning the proper shipping name, hazard class, I.D. number and packing group. [49 CFR §173]
- Using the correct packaging, labeling and marking. [49 CFR §173]
- Determining which placard(s) to use. [49 CFR §172.500(a)]
- Preparing the shipping papers. [49 CFR §172.200]
- Certifying on the shipping paper that the shipment is in compliance with the regulations. [49 CFR §172.204]
- Only shipping hazmat via a carrier that has a FMCSA safety permit. [49 CFR §173.22(b)]
- Keeping copies of shipping papers. (hazardous waste: 3 years; other hazmat: 2 years). [49 CFR §172.201(e)]

The carrier is the trucking company that transports hazmat. The carrier is responsible for:

- Using the proper placards. [49 CFR §172.500(a)]
- Refusing improper shipments. [49 CFR §177.801]
- Reporting accidents and spills involving hazmat.
- Assuring that the carrier's hazmat employees receive the required training. [49 CFR §177.800(c)]
- Keeping copies of shipping papers. (hazardous waste: 3 years; other hazmat: 1 year). [49 CFR §177.817(f)]

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The Shipper's

The Driver's Responsibility

When the driver is at the vehicle's controls, the shipping papers must be within the driver's reach and either visible to a person entering the driver's compartment or in a holder inside the driver's door. [49 CFR §397.11(a)]

When the driver is not at the vehicle's controls, the shipping papers must be in a holder inside the driver's door, or on the driver's seat. [49 CFR §397.11(b)]

The DOT hazmat rules are complicated, but you need to know them. Pleading ignorance will not prevent you from receiving a citation. The driver hauls the hazmat and is responsible for:

- Checking the shipping papers, labels and placards to make sure that they agree with each other.
- Verifying the shipper's certification of compliance on the shipping papers. [49 CFR §177.817(b)]
- Refusing to load improper shipments of hazmat.
- Following all rules for transporting hazmat.
- Keeping the shipping papers in the proper, accessible place. [49 CFR §177.817(e)]
- Keeping the Emergency Response Guidebook (or equivalent information) in an accessible place.
- Ensuring that the shipping papers are within the driver's reach when the driver is at the vehicle's controls. The shipping papers must also be visible to a person who is entering the driver's compartment or in a holder inside the driver's door. [49CFR § 397.11(a)]
- Ensuring that the shipping papers are either in a holder inside the driver's door or on the driver's seat when the driver is not at the vehicle's controls.
- Ensuring the vehicle has the proper placards.
- Knowing where to find your company's hazardous materials registration number.

Some of these responsibilities are the same as those of the carrier. The driver works for the carrier and is the one who actually does many of the carrier's duties.

As a driver you have serious responsibilities. The DOT hazmat rules may be complicated, but you need to know them. Pleading ignorance will not prevent you from receiving a citation.

If you are given a sealed vehicle to drive, or a container, DOT does not expect you to verify that the packaging, labeling, and loading inside the vehicle are correct. However, you are still responsible for making sure that the placards agree with the shipping papers and that the shipment is transported safely.

In some instances, the OSHA standards that cover workplace safety may not apply to work sites and work activities that are covered by the regulations of other federal agencies.

Transportation workers are employees and are entitled to a safe and healthy work place that complies with OSHA standards. But much of what they do is also covered by DOT regulations.

Which agency should you call? It depends on the specific case. The Teamsters use these rules-of-thumb:

- Activities related to driving are generally covered by DOT. (Driver qualifications, shipping papers, placards, labels, driving, parking, reporting traffic accidents, and so forth).
- Non-driving activities are generally covered by OSHA. (Warehouse and dock work, use of personal protective equipment, right to safety and health information, and so forth).

If your employer fails to comply with transportation safety regulations you may file a complaint to the US DOT– or with your state transportation agency.

- Put the complaint in writing. Keep a copy for yourself.
- Describe the hazard or unsafe condition.
- If you know the specific DOT regulation that's being violated, include it in your complaint. If you are a union member, you may also call the IBT Safety and Health Department for assistance.
- If you are represented by a union, contact your union steward or business agent.

The Driver's Responsibility

About OSHA and DOT Jurisdiction

DOT Safety Complaints

The Right to Refuse Dangerous Work

As an employee, you are expected to do your job the way your supervisor tells you. However, sometimes a situation may arise where you believe it is unsafe to do a task. For example, the truck that you are assigned to drive has faulty brakes. Usually you or your union steward will be able to resolve the problem by discussing it with the supervisor.

The union contract and the law give you certain rights if you are ever in the situation where you feel that you must refuse to do dangerous work. In order to preserve your rights make sure that you:

- 1. **Don't act alone.** Contact the union steward and talk with your fellow workers.
- 2. **Point out the danger** to the supervisor and to your fellow workers.
- 3. Make it clear that you are not insubordinate. Explain that you are willing to do the job if it can be done safely.
- 4. Offer to do other work.
- 5. **Don't walk off the job**. Don't leave the site unless ordered to do so by the supervisor.

If you are disciplined for refusing to do a hazardous job and you are represented by a union, your union representative can help you to file a grievance.

You should also consider filing a complaint about your discipline with OSHA and with the National Labor Relations Board.

Section 405 of the Surface Transportation Assistance Act protects drivers, mechanics, and freight handlers from discrimination or discharge for:

- Refusing to operate a vehicle if doing so would violate a safety regulation.
- Refusing to operate a vehicle if the employee has a reasonable apprehension of serious injury, or injury to the public, because of the unsafe condition of the equipment.
- Complaining or testifying about violations of vehicle safety requirements.

If you feel that you must refuse to operate the vehicle, make sure that you ask your supervisor to correct the problem or give you another safe vehicle to use. Follow the procedures described on the previous page.

If you believe that you have been penalized for refusing to drive an unsafe vehicle, or complaining about unsafe working conditions, you can file a Section 405 complaint with OSHA. Any complaint must be filed within 180 days of the alleged discrimination.

If you are represented by a union, you should notify your shop steward or union business representative.

DOE Order 440.1A says that workers at DOE facilities can "decline to perform an assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious bodily harm to that individual, coupled with a reasonable belief that there is insufficient time to seek effective redress through the normal hazard reporting and abatement procedures." The Right to Refuse to Operate Unsafe Equipment: Section 405

The Right to Stop Work at DOE Sites



Learning Objectives

Chapter 3 discusses the health hazards associated with the transportation of hazardous materials.

- 1. **Identify** at least five kinds of disease or damage that chemicals can cause to our bodies.
- 2. **Identify** five routes of entry by which hazardous chemicals can get into or on your body.
- 3. **Identify** the difference between short-term and long-term health effects.
- 4. **Describe** how to obtain more information about the health effects of chemicals.

There are many ways that hazardous chemicals can affect your health. You might get a rash, feel sick or become dizzy. Your liver, lungs or other organs might be damaged. Your ability to have children might be affected. You might get cancer. The effect depends on the chemical, how much you absorb, and your own state of health.

Asphyxiants – chemicals that make it hard to breathe.

Our bodies need a constant supply of oxygen to live. Our lungs absorb this oxygen from the air.

If a cylinder of argon gas (used in welding) leaks inside a trailer, the argon will take the place of oxygen in the air. Argon is not a poison; but if there is a lot of argon in the air, there won't be enough oxygen to breathe. Any gas or vapor – if enough of it escapes – can decrease the amount of oxygen in the air.

Some chemicals, if they get into our body, can prevent the body from being able to use oxygen. For example, carbon monoxide is a gas that is part of diesel exhaust. If we inhale carbon monoxide, it will interfere with the way that our blood carries oxygen to different parts of our body. The effect is as if we weren't breathing enough oxygen in the first place.



Chemicals and Your Health

Any gas or vapor can be an asphyxiant if enough is released to displace oxygen in the air.

Chemicals and Your Health



Even though acids and bases are both corrosives, they can react violently with each other, so we need to keep them apart.

Poisons – chemicals that can cause injury, illness, or death.

Poisons are also called **toxins** or **toxics**. These attack target organs. Some affect the liver, others the nerves, kidneys, heart, blood, lungs or respiratory system.



Many toxins have more than one target organ. For example, a solvent used to clean parts in the shop might cause liver damage and also affect the nerves.

Corrosives – chemicals that eat away your skin.

Battery acid, for example can burn your skin. If you get it in your eye it can cause permanent damage, including blindness.

There are two types of corrosives: **acids**, like the sulfuric acid in a battery; and **bases**, like ammonia or lye. Both acids and bases can corrode and burn your skin or damage your eyes. Acids may react violently with bases. Never mix an acid and a base. (For example, never mix bleach and ammonia.)



In order for a chemical to affect your health, it has to get into or on your body. There are several different **routes of entry**. It is important for you to know the routes of entry for chemicals, because this will help you to understand how to keep hazardous chemicals from getting into or on your body.

- **1. Inhalation** is breathing in a hazardous material.
- **2. Skin or eye contact** is when a hazardous material gets on your skin or in your eye.
- **3. Skin absorption** is when a hazardous material gets on your skin and soaks through. It then enters the blood and is carried to other parts of your body.
- **4. Ingestion** is when you accidentally swallow a material. This might happen if the material gets on your hands, and then on the sandwich you eat.
- **5. Injection** is when a sharp object punctures your skin, and a chemical or infectious agent enters.

Chemicals may enter the body by more than one route of entry. For example, if you handle a leaking container of solvent it can irritate your skin. It can also be absorbed, into your blood and reach your liver or other organs. It can also evaporate and be inhaled. The solvent affects you by skin contact, skin absorption, and inhalation.



Routes of Entry

Short Term and Long Term Effects

Acute = short term

Chronic = long term

Some chemicals cause effects that occur immediately. For example, if acid gets in your eye, it causes a painful burn immediately. If you inhale ammonia vapor, you cough and feel irritation in your nose and airways right away. This is called a **short-term effect** or **acute effect**.

If you breathe small amounts of benzene, you might not feel any acute effect. But if you inhale benzene continuously year after year, you increase your chances of getting blood cancer. This is a **long-term effect** or **chronic effect**.

The same chemical can cause both acute and chronic effects. For example, if you inhale toluene you can get dizzy or "high", and feel respiratory irritation. Toluene can also dry and irritate the skin. These are acute effects. However, if you are exposed again and again, over a period of time, toluene will damage your liver and destroy brain cells. These are chronic effects.

We usually notice acute effects such as a burn or irritation. These effects can warn us to take precautions.

Unfortunately, you usually won't notice chronic effects until it's too late because they happen slowly and it takes a long time to develop symptoms.

You have to learn the chronic effects of the chemicals you work with. Then you will know what precautions to take, even if the materials don't cause any immediate effects. Some hazardous materials are **radioactive**. This means that they give off an invisible form of energy called **Ionizing Radiation** that can cause adverse health effects. The health effects we're most worried about with ionizing radiation are the increased risk of **cancer** and the increased risk of **reproductive effects**.

Radioactive materials can be solids, liquids or gasses. These materials can get into or on our bodies by the same routes of entry we've discussed. If they get into or on our bodies, then we will be exposed to the radiation they give off.

Some materials give off a form of **ionizing radiation that can pass right through the container or package.** This type of radiation is called **Gamma Radiation**. It can also pass through our bodies, like an x-ray- only gamma radiation is much stronger.

Materials that give off gamma radiation can be hazardous even if the material doesn't get into or on your body. If you are just near a package or container of these materials you might be exposed to ionizing radiation.

This is the reason there are special packaging, loading and shielding requirements for radioactive materials that give off gamma radiation. Even if you have no contact with the material, the radiation it gives off might be harmful. This is why you need special training to transport radioactive material.

Radioactive Materials





Learning Objectives

Chapter 4 discusses the vehicle safety and cargo securement requirements in the DOT regulations.

1. **Identify** required components of a driver's pre-trip inspection.

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[49 CFR §392.7]
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- 2. **Describe** required emergency equipment on a commercial motor vehicle. [49 CFR §392.8]
- 3. **Describe** how and when to conduct a cargo securement inspection. [49 CFR §392.9]
- 4. **Identify** the required components of a driver's post-trip inspection and Driver Vehicle Inspection Report (DVIR).

[49 CFR §392.7 & 49 CFR §396.11]

An important part of hazardous materials safety for drivers is the pre-trip inspection. Before operating a commercial motor vehicle, the driver is required to inspect the vehicle and review the previous driver vehicle inspection report to ensure that the vehicle is in safe operating condition. If defects or deficiencies are found and documented by the previous driver, drivers are prohibited from operating those vehicles until the motor carrier repairs the documented deficiencies. (See Chapter 2, Rights and Responsibilities).

A pre-trip inspection must cover all of the following parts and accessories.

- Service brakes, including trailer brake connections.
- Parking (hand) brake.
- Steering mechanism.
- Lighting devices and reflectors.
- Tires.
- Horn.
- Windshield wiper or wipers.
- Rear-vision mirror or mirrors.
- Coupling devices.

[49 CFR §392.7]



Pre-Trip
Inspection

The motor carrier is responsible for ensuring that all of the defects that were documented by the driver are repaired prior to allowing the vehicle to be operated.

An ounce of prevention is worth a pound of cure.

Emergency Equipment

Any vehicle transporting hazardous material must carry a fire extinguisher with a UL rating of 10 B:C or higher.

[49 CFR §393.95(a)]

You should never use flame producing devices, fuses, or flares if you are carrying combustible, flammable, explosive, or oxygen.

Cargo Securement Inspection

See Chapter 13, Transporting Hazardous Materials, for tips on safely parking a vehicle with hazmat. The driver of a commercial motor vehicle has to be satisfied that the required vehicle emergency equipment is in place and functioning properly. The driver must also use the vehicle safety equipment when necessary. [49 CFR §392.9] Vehicle emergency equipment includes:

- 1. Fire extinguishers.
- 2. Spare fuses.
- 3. Warning devices for stopped vehicles.
 - 3 Reflective Warning Triangles.
 - Flame producing devices, fuses, and liquid-burning flares. [49 CFR §393.95]

Before taking out a commercial motor vehicle, it is the driver's responsibility to ensure the vehicles cargo, tailgate, doors, spare tire, and other equipment are all secured– so that they will not leak, spill, or fall from the vehicle, and will not effect the stability of the vehicle.

To make sure that the load doesn't shift during transport, the driver must stop and re-examine the cargo:

• Within 50 miles of starting the trip

And then

• Within 150 miles of starting the trip

-or-

• Within 3 hours of starting the trip

Whichever comes first.

[49 CFR §392.9]

A driver hauling hazardous materials may have to stop according to their route plan.

Regular cargo securement inspection is especially important to prevent **rollover**. Rollover is where a truck flips on its side or roof. Because of their high center of gravity, commercial motor vehicles are especially prone to rollover. If this happens to a truck carrying hazardous materials, it can result in a spill or accidental release.

At the end of each shift, commercial drivers are required to prepare a Driver Vehicle Inspection Report (DVIR), in writing, to document any defects or deficiencies that may affect the safe operation of the vehicle or result in its mechanical breakdown.

The DVIR must include the following parts and accessories:

- Service brakes;
- Parking (hand) brake;
- Steering mechanism;
- Lighting devices and reflectors;
- Tires;
- Horn;
- Windshield wipers;
- Rear vision mirrors;
- Coupling devices;
- Wheels and rims;
- Emergency equipment.

If the driver noted no such deficiencies or defects, it should be noted in the report. In any case, the driver is required to sign the DVIR and submit it to the motor carrier.

[49 CFR §396.11-13]



Post-Trip Inspection

Chapter 5

The Emergency Response Guidebook



Learning Objectives

Chapter 5 introduces the Emergency Response Guidebook (ERG).

- 1. Identify the general content of each section of the ERG.
- 2. **Identify** the correct guide and other specific information in the ERG for any given hazardous material.

The DOT Emergency Response Guidebook (ERG) provides information to **identify hazardous materials** and **make decisions about response and evacuation during the initial response to a hazmat incident**.

The ERG contains **guides**, which are two-page descriptions of how to respond. Each guide is for a different set of circumstances. The guides are the "guts" of the book. The ERG is intended to assist emergency responders during the first half hour of their response. After that it is assumed that more complete information, such as expert consultation and computer databases will be available.

The ERG has six color-coded sections:

• White: The white section at the front of the book has (Front) pictures of all the different placards, and pictures of different kinds of vehicles.

The purpose of the white section is to help you find the right guide if you only know the placard or the type of vehicle.

• Yellow: The yellow section is a list of all of the UN/NA identification numbers. For each number it tells the name of the hazmat and also tells which guide to use.

The purpose of the yellow section is to help you identify the hazmat and find the right guide to use – if you know the UN/NA identification number.

• Blue: The blue section is a list of the names of different hazmats. For each name it tells the UN/NA identification number and also tells which guide to use.

The purpose of the blue section is to help you identify the hazmat and find the right guide to use - if you know the name.



Using

ERG

the

Using the ERG

If the name and UN/NA number of the hazmat was highlighted in the yellow and blue sections, then there is more information about that hazmat in the green section.

Both the front and back white sections contain a list of emergency phone numbers.

A copy of the appropriate ERG guide, or equivalent information must be attached to the shipping paper for each hazmat.

- **Orange:** The orange section contains the guides. Each guide gives information about:
 - Health hazards.
 - Fire hazards.
 - Protective clothing.
 - Evacuation.
 - Fire response.
 - Spill response.
 - First aid.
- Green: The green section contains more detailed information about isolation and protective distances for hazmats which are Toxic Inhalation Hazards (TIH). It is organized by UN/NA ID Number.

The green section also has a list of hazmats that produce toxic gases if they react with water. This is important information that fire fighters need before they use water to suppress a fire or to dilute a spill.

• White: The white section at the back of the book contains (Back) a glossary of words used to describe hazmat and emergency response.

This white section also has information about protective clothing, fire and spill control, as well as information on criminal/terrorist uses of hazardous materials.

You should be familiar with the ERG – and practice using it – so that you can quickly get information if you are involved in a hazmat incident.

Keep the ERG with you when you drive hazmat.

Notes:

Chapter 6



The Hazardous Materials Compliance Pocketbook

Learning Objectives

Chapter 6 introduces the Hazardous Materials Compliance Pocketbook.

- 1. Identify the topics the Pocketbook addresses.
- 2. Identify the specific sections of the *Pocketbook* that apply to your job.

Drivers need to be current with changes to regulations that affect the safe transportation of hazardous materials. The Hazardous Materials Compliance Pocketbook was developed to provide drivers with important information regarding hazardous material shipments in the changing transportation industry. The book complies with the Hazardous Materials Regulations (HMR) in 49 CFR parts 100-185.

The regulations found in the pocketbook give drivers direction to ensure the safe transportation of shipments of hazardous gasses, liquids, and solids across the country.

The pocketbook contains the requirements for accepting and transporting hazmat in commercial motor vehicles by private, common, or contract carriers. Therefore, it is useful to shippers and drivers who are responsible for providing proper shipping papers and transporting hazardous materials. Shippers who compile shipping papers must confirm that the documents contain the proper shipping name, hazard class or division, correct ID numbers, packing groups, and proper placards associated with the hazmat shipment. Drivers must ensure that hazmat shipping papers are readily available for routine inspection by law enforcement and available to first responders in the event of an incident.

The Hazardous Materials Compliance Pocketbook is printed and updated monthly to ensure that it is current and includes the latest regulatory requirements.

Why use the Hazmat Compliance Pocketbook?

The pocketbook tells drivers how the laws affects them directly.



Chapter 7



Hazardous Material Classes and Divisions

Learning Objectives

Chapter 7 discusses the different types of hazardous material, and how the DOT classifies them.

- 1. Identify the nine DOT hazard classes.
- 2. **Identify** which DOT hazard classes are divided into hazard divisions.
- 3. **Describe** in general terms the hazard(s) posed by hazmat in each class and division.
- 4. Describe the meaning of "ORM-D" and "Limited Quantities".
There are many kinds of Hazardous Materials. DOT classifies them according to the most serious **type of hazard** they present if there were a transportation incident.

There are **nine hazard classes** and one other category called "otherwise regulated material."

Some hazard classes are also divided into divisions.

Class 1: Explosives

The explosives class has six divisions:

- Division 1.1 Mass explosion hazard.
- Division 1.2 Projection hazard.
- Division 1.3 Fire hazard.
- Division 1.4 No significant blast hazard.
- Division 1.5 Very insensitive; blasting agent.
- Division 1.6 Extremely insensitive.

The explosives class also has compatibility groups within each division.

DOT Hazard Classes and Divisions



DOT Hazard Classes And Divisions

Class 2: Compressed Gases

The compressed gases class has three divisions:

- Division 2.1 Flammable gas
- Division 2.2 Non-flammable gas and oxygen
- Division 2.3 Inhalation Hazard (poison gas)



Class 4: Reactive material

This class has three divisions:

- Division 4.1 Flammable solid.
- Division 4.2 Spontaneously combustible.
- Division 4.3 Dangerous when wet.



ORC

PEROXIDE

5.2

Yellow

DOT Hazard Classes And Divisions

OXIDIZER

5.1

Yellow

PEROX

5.2

Yellow

DE

DOT Hazard Classes And Divisions

"Etiological" is a scientific word for biological materials that can kill or injure – for example, anthrax

Class 6: Poisonous and Infectious Material

This class has two divisions:

- Division 6.1 Poisonous materials.
- Division 6.2 Infectious substances; etiologic agents.



Class 9: Miscellaneous hazardous material that does not meet the definition of any of the other classes

Examples of Class 9 Hazardous Materials include asbestos and dry ice. For Class 9 Hazmat, placards are not required for transportation within the United States. However, bulk amounts of Class 9 Hazmats must be marked with the appropriate ID number (UN or NA) on a Class 9 Placard, an orange panel, or a white square-on-point.



DOT Hazard Classes And Divisions

Other Regulated Material (ORM-D)

ORM-D includes consumer commodities such as aerosol sprays or other hazardous materials that are packaged for sale. Although the total quantity of the shipment may be significant, if the packages are packed for resale, they don't require a placard.



	DC	OT Hazard Classes and Divisions
Class 1	Division 1.1	Explosive (with a mass explosion hazard)
	Division 1.2	Explosive (with a projection hazard)
	Division 1.3	Explosive (with predominately a fire hazard)
	Division 1.4	Explosive (with no significant blast hazard)
	Division 1.5	Very insensitive explosive, blasting agent
	Division 1.6	Extremely insensitive detonating substance
Class 2	Division 2.1	Flammable gas
	Division 2.2	Nonflammable compressed gas and oxygen
	Division 2.3	Poisonous gas
Class 3		Flammable liquid and combustible liquid
Class 4	Division 4.1	Flammable solid
	Division 4.2	Spontaneously combustible material
	Division 4.3	Dangerous when wet
Class 5	Division 5.1	Oxidizer
	Division 5.2	Organic peroxide
Class 6	Division 6.1	Poisonous Material
	Division 6.2	Infectious Substance (etiologic agent)
Class 7	• • • • • • • • •	Radioactive material
Class 8	•••••	Corrosive material
Class 9	• • • • • • • • •	Miscellaneous hazardous material
ORM-D	•••••	Other regulated material - domestic

Notes:

Chapter 8 DOT Hazardous Materials Table

Learning Objectives

Chapter 8 discusses the DOT Hazardous Materials Table and how to use it.

- 1. **Identify** the columns in the DOT Hazardous Materials Table that are relevant to transportation of hazardous materials by motor vehicle.
- 2. **Identify** the proper shipping name, hazard class, UN or NA identification number and packing group for a hazardous material, using the DOT Hazardous Materials Table.

The **proper shipping name** is the correct name that **must be used** to describe a hazmat on the shipping papers and on package labels.

The only proper shipping names allowed are the names listed in the DOT Hazardous Materials Table.

[49 CFR 171.8]

People often use many names for the same chemical, but not every name is a proper shipping name.

For example, the following names all refer to the same chemical: carbinol, methyl hydrate, methyl hydroxide, methyl alcohol, and wood alcohol. However, none of these names are the DOT proper shipping name.

The proper shipping name for this chemical is **methanol**. Why? Because that is the name that the DOT put in its table for this chemical.

Each hazmat has a four-digit **identification number**. Most are "UN" numbers. A **UN number** is the number assigned to the hazmat by a United Nations agreement that assures that all countries use the same identification number when they ship a hazmat to another country.

Some hazmats have an **NA number**. These numbers are for shipments in North America (Canada, United States and Mexico.) However, in most cases the UN and NA four-digit numbers are the same.

Proper Shipping Name

UN and NA Identification Number

Packing Groups	Some hazard classes and divisions are further divided into packing groups (PG) according to the degree of danger that the materials present. These are called packing groups because different degrees of danger require different kinds of packaging:								
	PG I: Great danger.								
	PG II: Medium danger.								
	PGIII: Minor danger.	[49 CFR §173.121]							
Hazard Zones	Division 2.3 (poisonous gas) and division substances) are also divided into Hazard 2 are four types: A, B, C and D. Hazard Zone A is the most toxic. Hazard 2 toxic. [49 CFR §173.1	6.1 (poisonous Zones (HZ) . There Cone D is the least 16 and 49 CFR §173.133]							
Compatibility Groups	Explosives are further divided into 13 com determine which explosives can be shippe – and which cannot. [49 CFR §173.52(b)	patibility groups that d and stored together and 49 CFR §177.848(f)]							

Packing Groups, Hazard Zones and Compati	ibility Groups
These classes and divisions are divided into	3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, and 8
packing groups (PG):	
These divisions are divided into hazard zones	2.3 and 6.1 (only PG I)
(HZ):	
These explosives are divided into	1.1, 1.2, 1.3, 1.4, 1.5, and 1.6
compatibility groups:	

The **DOT Hazardous Materials Table** is where to look in order to find the correct information about a hazmat:

- Proper shipping name.
- Hazard class.
- UN or NA Identification Number.
- Packing Group (PG) if there is one.
- Which label or labels to use.
- Which package specifications to use.
- Any special requirements.

Below are several examples from the Table.

The DOT Hazardous Materials Table

	49 CFR 172	2.101 H	azardous	Ma	terials	Table (exa	ample entr	ies)					
Symbols	Hazardous Materials Description and	Hazard Class or	Identificat ion	PG	Label Codes	Special Provisions	Packaging (173.***)						
	Proper Shipping Names	Division	Numbers			(172.102)	Exceptions	Non-Bulk	Bulk				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)				
D	Diesel fuel	3	NA1993		None	144, B1, IB3, T4, TP1, TP29	150	203	242				
Ι	Diesel fuel	3	UN1202		3	144, B1, IB3, T4, TP1, TP29	150	203	242				
DG	Hazardous waste, liquid, n.o.s.	9	NA3082	III	9	IB3, T2, T1	155	203	241				
	<i>Hydrofluoric acid,</i> <i>anhydrous, see</i> Hydrogen fluoride, anhydrous												
	Hydrogen fluoride, anhydrous	8	UN1052	Ι	8, 6.1	3, B7, B46, B71, B77, T10, TP2	None	163	243				
	Lead nitrate	5.1	UN1469	Π	5.1, 6.1	IB8, IP2, IP4, T3, TP33	152	212	242				
G	Ketones, liquid, n.o.s.	3	UN1224	Ι	3	T11, TP1, TP8, TP27	None	201	243				
	Toluene	3	UN1294	II	3	IB2, T4, TP1	153	202	242				

The DOT Hazardous Materials Table

If there is no "D" and no "I" then the information can be used for both domestic and international shipments.

If there is no "A" and no "W" then the information applies to all modes of transportation (truck, rail, airplane and boat.)

Most hazmats don't have a +. For most hazmats, the name, class, and PG might vary depending on how concentrated the material is or what it is mixed with.

If the word "forbidden" appears in column (3), it means that the hazmat cannot be transported. **Column (1)** may be empty, or may have one or more special code letters:

- A Means that the hazmat information applies only to shipments by airplane.
- **D** Means that the hazmat information applies to domestic shipments (within the U.S.)
- I Means that the hazmat information is for international shipments.
- **G** Means that the proper shipping name is a generic name one that can be used for more than one specific hazardous material.
- W Means that the information only applies to shipments by water.
- + Means that this is the only proper shipping name, class and packing group for this material.

Column (2) lists all the different hazmats in alphabetical order according to their proper shipping name.

The proper shipping name is printed in **Roman Type** (straight up and down letters). Any information in slanted letters is not part of a proper shipping name.

Column (3) tells the hazard class or division.

Column (4) shows the UN or NA identification number.

Column (5) shows the Packing Group (PG).

Column (6) tells which label or labels have to be on packages or containers of the hazmat.

Column (7) indicates special provisions. The codes in this column refer to notes at the end of the Table.

Columns (8A), (8B) and (8C) indicate regulations that explain what kind of packaging the hazmat requires.

The Environmental Protection Agency (EPA) also has transportation rules for certain hazmats. EPA calls these **hazardous substances**. EPA is concerned about those types of hazmat that could damage the environment if there is an accident or spill.

The hazmats that are EPA hazardous substances are listed after the Hazardous Materials Table in a section called **Appendix A** -**List of Hazardous Substances and Reportable Quantities**. Appendix A has two parts. The first part (Table 1) lists chemical substances and the second part (Table 2) lists radioactive materials.

Each substance in **Appendix A** has an amount called the **Reportable Quantity (RQ)**. If you are carrying this amount or greater, the shipping paper will say "RQ" in the hazmat column. If there is a spill equal to or more than the reportable quantity it must be reported as soon as possible to the to National Response Center.

It's confusing...

DOT says hazardous material.

EPA uses the term **hazardous substance**. EPA also has regulations for **hazardous waste**.

OSHA talks about **hazardous chemicals**.

The names are slightly different. The legal definitions are slightly different.

However, for the purposes of hazmat transportation, a hazardous material is something that is listed in the DOT Hazardous Materials Table or in Appendix A. If it's on the list, then it is hazmat and it's covered by DOT regulations. Hazardous Substance and Reportable Quantity

Chapter 9



Shipping Papers

Learning Objectives

Chapter 9 discusses how to fill out, read, and understand shipping papers.

- 1. Identify the purpose (use) of a shipping paper.
- 2. Identify the specific hazardous material(s) on the shipping paper.
- 3. Identify the hazards associated with the specific hazardous material(s).
- 4. **Determine** whether the product description and other information required by DOT is entered correctly.
- 5. Locate emergency response information and emergency response telephone number.

The **shipping paper** is the document that describes the hazmat being transported. A shipping paper is sometimes referred to as a **bill of lading** or a **manifest**.

Even though the shipper prepares the shipping paper, the **driver has to check** to ensure that the shipment, labels and placards match what's described in the shipping paper.

The **shipping paper must contain** an accurate description of each hazmat in the vehicle. This includes the following information for each hazmat: [49 CFR §172.202(a)]

- Proper shipping name.
- Hazard class.
- UN or NA Identification number.
- **Packing Group (PG)** if there is one.
- **Quantity**. Amount of hazmat in pounds, kilograms, gallons, number of drums whatever is the appropriate way to describe the quantity.
- **RQ** if it is a reportable quantity.
- **Poison** if it is a poison.

The shipping paper must also include:

- The **shipper's signature** certifying the shipment has been prepared properly. [49 CFR §172.204]
- An emergency phone number. [49 CFR §172.201(d)]

DOT also requires that for each hazmat there must be, attached to the shipping papers, a copy of the ERG guide for that hazardous material, or an MSDS/SDS, or a similar document that contains emergency response information for each hazardous material.

Shipping papers must be in English.

[49 CFR §172.201(a)(2)]

When the driver is at the vehicle's controls, the shipping papers must be within the driver's reach, and either visible to a person entering the driver's compartment, or in a holder inside the driver's door. [49 CFR §177.817(e)2i]

When the driver is not at the vehicle's controls, the shipping papers must be in a holder inside the driver's door, or on the driver's seat.

[49 CFR §177.817(e)2 ii]

On the next page is an example of a hazmat shipping paper.

Shipping Papers

You should make sure that the shipping paper description agrees with the proper shipping name and other information in the DOT Hazardous Materials Table. If there is an error, or something that you do not understand, contact your supervisor. If the shipping paper describes both hazmat and non-hazmat, then the **hazmat must be**:

- Listed first, or
- Highlighted with a contrasting color, or
- Identified with an "X" in the "HM" column.
- If the shipment is a reportable quantity, "RQ" must appear in the "HM" column.

The hazmat description must be in this order:

[49 CFR §172.202]

Proper Shipping Name Hazard Class ID No. PG (Until 2013)

- or -

ID No. Proper Shipping Name Hazard Class PG (After 2013)

Union Trucking, Inc											
To: Solve	ent Wo	rld		From: Acme Chemical Company							
Consigne	e: 22 S	pringdale	e St.	Shipper: 32 Grandsville Rd.							
	Nut	ley, NJ 12	2345		Cine	cinnati, OH	45223				
Route (if route controlled material)					Hazardous Materials Registration Numbers State: 00 Federal: 00-007						
Quantity	HM RQ	I.D.No.	Proper Shipping Name	Hazard Class	PG	Container	Gross Wgt.	Required Labels			
275 gal	Х	UN 1993	Flammable liquid n.o.s. (acetone, methyl ethyl ketone, xylene)	3	II	5 55-gal drums	1925 Ibs	Flammable Liquid			
MSDS/SI	DS or l	ERG page	or ERG information is	Emergency Phone Number: 1-800-123-4567							
required v Proper Sh Hazardou from colu Table .I.I the Hazar Number (Materials of the Ha	with ha hipping s Mate mn 3 c num dous M PG#) f Table zardou	zardous r Name fr erials Tab of the Haz ber (UN# Aaterials from colu Require s Materia	naterials shipments. om column 2 of the le. Hazard Class Name zardous Materials , NA#) from column 4 of Table. Packing Group mn 5 of the Hazardous d Labels from column 6 ls Table.	This is to are prop marked a accordin Departm Signed:	o cert erly c and in g to t ient o	tify that the classified, do n proper con the applicab of Transport	above n escribed idition f ile regulation.	amed materials , packaged, for transportation ations of the			

Most of the proper shipping names in the DOT Hazardous Materials Table refer to individual, specific substances. However, some proper shipping names refer to a general group of materials. For example:

Flammable liquids, n.o.s.

Hazardous waste, solid, n.o.s.

The abbreviation **n.o.s.** means the chemical being shipped is **not otherwise specified** in the Table.

If a hazardous material does not have an individual, specific name in the Table, then the shipper is supposed to use the **n.o.s.** proper shipping name that best fits. For example, caprylyl chloride is a corrosive liquid which is not individually listed. Its proper shipping name is:

Corrosive liquid, n.o.s.

On the shipping paper the technical name of the material must appear after an **n.o.s.** name. This tells you what the material actually is: [49 CFR §172.203(k)]

UN 1760, Corrosive liquid, n.o.s., (Caprylyl chloride), 8, PG II.

In some cases an n.o.s. name is used for **hazardous waste**. In this case the word **waste** must be written **before** the proper shipping name, and, the EPA hazardous waste code number may be used instead of the technical name:

NA 3082, Waste, Liquid, n.o.s., (D001), 9, PG III

You can find the correct EPA hazardous waste code number in Appendix A - List of Hazardous Substances and Reportable Quantities.

Chapter 10



Placards, Markings, Labels and Packaging

Learning Objectives

Chapter 10 discusses the requirements for placards, markings, labels, and packaging hazardous material.

- 1. Identify the nine hazard classes and their divisions.
- 2. Identify a hazardous materials shipment by placards and labels.
- 3. **Identify** other potential hazmat dangers (inhalation hazard, reportable quantity, hazardous waste).
- 4. Describe how and where to place placards, markings, and labels.
- 5. **Describe** the placarding requirements for bulk shipments in intermodal bulk containers and tankers.

A package or container that has a capacity of **119 gallons or less** and **882 pounds or less** is called **non-bulk**.

[49 CFR 171.8]

Non-bulk packages and containers of hazmat must be marked with: [49 CFR 172.300-338]

- **Proper shipping name** of the hazardous material.
- UN or NA identification number.
- Gross weight.
- Name and address of the shipper.
- **Reportable quantity (RQ)** (if applicable).
- Special markings such as Inhalation Hazard, Dangerous When Wet, Marine Pollutant, etc. (if applicable).
- This End Up (if applicable).
- Transport Index (TI) (for radioactive materials).

All hazmat markings and labels used in the United States must be in **English**.

Markings must be printed on the container or package, or on an attached label or tag.



Labels On Non-Bulk Containers and Packages

All non-bulk packages and containers must have a **hazard class label**. This label is diamond shaped with each side measuring 4 inches. [49 CFR 172.400-450]

Hazard class labels look like small placards.

To find out which labels are required look in **column (6)** of the DOT Hazardous Materials Table. If more than one label is listed in the table, the labels must be placed close together on the package or container.

If more than one hazardous material is packed in the same package or container, the outside package must have all the labels required for each of the hazardous materials that are packed inside.



The labels required under the OSHA Hazard Communication Standard do not satisfy the DOT requirements. DOT labels and markings do not provide all of the information required by OSHA.

Hazmat containers and packages often need two kinds of labels, one for DOT and one for OSHA.

OSHA requires that after a package arrives, and is no longer in transportation, the DOT labels must not be removed. The labels continue to provide hazard information to the workers using the product. A **placard** is a **square-on-point** sign, approximately 12 inches on each edge. [49 CFR 172.519)]

The correct **placards** must be attached to the vehicle before you drive it. You need four of each placard: one for **each side and each end**. [49 CFR 172.504(a)]

The shipper is required to provide the correct placards for the shipment, unless the vehicle already has those placards.

[49 CFR 172.506(a)]

Do not drive the truck without its required placards - you could receive a citation and fine.

To make sure the placards are correct, check:

- The hazard class or division of each hazmat.
- The **quantity** of each hazmat.
- Whether the container is a **bulk** carrier or a **non-bulk** carrier.
- The total quantity of all the hazmats in each hazard class or division loaded on the vehicle.

A container carrying over **119 gallons** (of a liquid or gas) or **882 pounds** (of a solid) is considered bulk. [49 CFR 171.8]

All bulk carriers are required to have placards regardless of the amount actually loaded.

A tanker with several compartments with different hazmats requires separate placards for each hazmat.

Placards on bulk carriers of hazmat must remain until the vehicle is washed and purged. [49 CFR 172.514(b)(1)]

The shipper is required to provide the correct placards for the shipment unless the vehicle already has those placards.

> Placards For Bulk Carriers

Placards For Non-Bulk Carriers

A container that has a capacity of **119 gallons or less** (for a liquid or gas) or **882 pounds** (for a solid) is called **non-bulk**. [49 CFR 171.8]

Whether a non-bulk carrier needs placards depends on the hazmat class or division:

- Some classes and divisions of hazmat **always require placards** when any amount — no matter how small – is loaded. These materials are listed in **DOT Table 1**.
- Some classes and divisions of hazmat require placards if **more than a certain amount is loaded**. These materials are listed in **DOT Table 2**.

DOT Table 1. [49 CFR 172.504(e) Table 1]

(Placards are required for any quantity of these materials.)

Hazard Class or Division	Placard to Use
1.1	EXPLOSIVES 1.1
1.2	EXPLOSIVES 1.2
1.3	EXPLOSIVES 1.3
2.3	INHALATION HAZARD 2
4.3	DANGEROUS WHEN WET 4
5.2 Organic Peroxide, Type B, liquid or solid, temperature controlled	ORGANIC PEROXIDE 5.2
6.1 Poison Inhalation Hazard	INHALATION HAZARD 6
7 Only for packages with Radioactive Yellow and for exclusive use shipments of low spec material (LSA) and surface contaminated	TIII labels, cific activity objects (SCO) . RADIOACTIVE 7

For a **non-bulk** vehicle the hazard classes and divisions listed in **DOT Table 2** require a placard only if the total amount of the hazmat in a particular class or division is **1001 lb. (454 kg) or more**. To determine the total amount of hazmat in each class or division add the weights listed for each separate hazmat in each class or division on the shipping papers. [49 CFR 172.504(c)]

1,001 Pound Rule

DOT Table 2 [49 CFR 172.504(e) Table	e 2]
(Placards are required only if the vehicle contains 1, gross weight of these mater	001 pounds or more aggregate rials.)
Hazard Class or Division	Placard to Use
1.4	EXPLOSIVES 1.4
1.5	EXPLOSIVES 1.5
1.6	EXPLOSIVES 1.6
2.1	FLAMMABLE GAS 2
2.2	NON-FLAMMABLE GAS 2
3 (Flammable liquid)	FLAMMABLE 3
3 (Combustible liquid)	COMBUSTIBLE 3
4.1	FLAMMABLE SOLID 4
4.2SPONTAN	EOUSLY COMBUSTIBLE 4
5.1	OXIDIZER 5.1
5.2 If other than Organic Peroxide, Type B, liquid or solid, temperature controlled	.ORGANIC PEROXIDE 5.2
6.1 If other than Inhalation Hazard	POISON 6
8	CORROSIVE 8
9	CLASS 9

DANGEROUS Placard DANGEROUS red 1,000 Kilogram Rule Placard **Exceptions** Placards can be used when not required - if they are the correct placards for the hazmat. Chapter 10

If a **non-bulk vehicle** has a load that includes **more than one kind of hazmat** that would require placards the vehicle may use either of the following:

- Display the placards for each hazmat that requires ٠ placarding, or
- Display just the **DANGEROUS** placard.

[49 CFR 172.504(b)]

However, if a vehicle is carrying several hazardous materials and has more than 1,000 kg (2,205 lbs.) of any one kind – that was loaded at a single facility – then the vehicle must have the specific placard for that material, not just the **DANGEROUS** placard.

[49 CFR 172.504(b)]

The DOT regulations contain many specific exceptions to the placard requirements. Here are a few situations in which placards are not required:

- Class 9 hazmat in domestic transport (within the United States). This includes many hazardous waste shipments. [49 CFR 172.500(2)]
- Consumer commodities, ORM-D/Limited Quantities [49 CFR 172.504(d)]
- A residue of Table 2 hazmat in non-bulk packaging. [49 CFR 172.504(d)]
- Infectious substances. [49 CFR 172.500(1)]
- The **FLAMMABLE** placard can be used instead of the **COMBUSTIBLE** placard on a bulk carrier of combustible liquid. [49 CFR 172.504(f)(2)]

A placard is a "square-on-point" sign, approximately 12 inches on each edge, placed on both sides and both ends of a vehicle.

The placard identifies the hazard class of a hazmat transported in the vehicle.

These vehicles always require placards:

- Bulk carriers such as tankers regardless of how full they are actually loaded.
- Non-bulk vehicles that carry any of the hazmat classes or divisions listed in DOT Table 1.

These vehicles **sometimes require placards**, depending on how much hazmat they carry:

Non-bulk vehicles that carry hazmats listed in DOT Table 2

 and do not have hazmats listed in Table 1. These vehicles require placards if they have 1,001 pounds (454 kilograms) or more of any hazmat class or division listed in Table 2.

These vehicles may use the **DANGEROUS placard**:

- Non-bulk vehicles with a mixed load containing different hazmats.
- If the vehicle loads 1,000 kg (2,205 lbs.) or more of any one hazmat, at one facility, it must have the specific placard for that hazmat.

It is prohibited to put anything other than a hazmat placard in a placard holder. No "happy face" or "Drive Safely". There may not be any sign on the vehicle that might be confused with a placard. [49 CFR §172.502(a)(2)]

Summary of Placard Requirements

> No Happy Face

Hazmat Identification Number on Bulk Vehicles





Bulk carriers – such as tankers – must have the UN/NA **Identification Number** on both sides and both ends. You might see the ID number displayed:

- On an orange panel with black numbers.
- On the placard.
- On a white "square-on-point" display.



The identification number must also be on vehicles:

- Loaded at one facility with 4,000 kg (8,820 lbs.) or more of only one hazmat in non-bulk packages.
- Containing 1,000 kg (2,205 lbs.) in non-bulk packages of a Poison Inhalation Hazards (PIH) or Toxic Inhalation Hazards (TIH).
- A closed vehicle that contains a cargo tank.

Some hazmats are designated by the EPA as **marine pollutants** because they are especially harmful if they accidentally get into the water. The marine pollutants are listed in Appendix B of the DOT Hazardous Materials Table.

On the shipping paper, "Marine Pollutant" must be added after the proper shipping name of the hazmat. The **marine pollutant marking** must be placed on both sides and both ends of a bulk carrier that contains a marine pollutant. [49 CFR §172.203(1)] **Hazardous waste** is a material intended for disposal or recycling that poses a significant threat to human health or the environment.

What's the difference between hazardous waste and hazardous material? The material itself may be identical. The difference is **what the person who has the material intends to do with it**.

If a hazardous material is shipped to someone who will use it, then it's not a hazardous waste. If it is intended to be disposed of – buried, burned, recycled, etc., in order to get rid of it – then it's a hazardous waste.

To make sure that hazardous waste goes to the proper facility and is not disposed of illegally there is a **special shipping paper** called a **Uniform Hazardous Waste Manifest** (UHWM).

The generator (EPA's name for the shipper) fills out the UHWM. The generator must keep a copy for three years. The generator also gives at least two copies to the transporter (EPA's name for the carrier).

The transporter gives a copy to the disposal facility. The disposal facility sends a copy back to the generator. The generator, shipper and disposal facility each sign the UHWM by hand. This process documents that the hazardous waste went to a legal facility.

Most hazardous wastes are materials that have proper shipping names listed in the DOT Hazardous Materials Table. The word "waste" must be written before the proper shipping name on the UHWM. For example:

waste acetone 3 1090 II

Hazardous Waste

Uniform Hazardous Waste Manifest UHWM

"Waste" must be written in front of the proper shipping name on the UHWM. To Prevent Illegal Disposal of Hazardous Waste

Hazardous Waste Placards and Labels The reason there is a special manifest for hazardous waste is that if a person is just trying to get rid of something, they might be motivated to dispose of it illegally in a way that harms the environment. Therefore, special procedures are required to make sure that the waste is tracked **"from cradle to grave,"** and is not illegally dumped.

Hazardous waste must meet the same DOT requirements for placards, labels, and markings as hazmat that is not a waste.

In addition, any container of hazardous waste that is 110 gallons or less must have a **hazardous waste label** like the one shown: [40 CFR 262.32]

	WAS	STE	
STATE AND FE	DERAL LAW PRO	HIBITS IMPRO	PER DISPOSAL. Ublic safety
AUTHORITY, OR THE CALIFORN	THE U.S. ENVIRON	MENTAL PROTECT	ION AGENCY, OR
GENERATOR INFORMAT	TION:		
ADDRESS		PHO	ŧE
CITY			
EPA DENTIFICATION NO. /	/ MANIFEST TRACKING NO	/	
EPA	CA NO	ACCUMUL	ATION
CONTENTS, COMPOSITI	WASTENU	ŞIARI DA	
		·	NIMMABLE 📋 TOXIC
PHYSICAL STATE:	HAZARDOUS PROP	Perties: 🛄 Fla	_
PHYSICAL STATE:	HAZARDOUS PROP JID CORROSIVE	PERTIES: FL	OTHER
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Chapter 11



Hazardous Materials Load and Segregation Table

Learning Objectives

Chapter 11 discusses the DOT Hazardous Materials Load and Segregation Table.

- 1. **Identify** the purpose (use) for the DOT Hazardous Material Load and Segregation Table.
- 2. **Identify** the difference between compatible and incompatible shipments.
- 3. **Define** the symbols on the Segregation Table.
- 4. **Identify** the significance of an entry in the note column of the table.

Incompatible chemicals are combinations of chemicals that undergo dangerous reactions if they mix with each other. The result might be a fire, explosion, or the release of toxic vapors and gases.

While you are not expected to be a chemist, there are some dangerous combinations you can remember:

- Keep acids and bases apart. They react violently.
- Keep oxidizers away from flammables or combustibles. There could be a fire or explosion. Oxidizers are chemicals that supply oxygen. They cause flammable and combustible materials to burn even more violently.
- Never put water on materials that react violently with water, like magnesium or sodium metal.





Chemical Incompatibility

Keep Incompatible Materials Apart

"Commingling" means coming together, touching each other, or mixing.

Even cylinders of nonflammable gasses can explode because they are under extreme pressure. If **incompatible** hazardous materials come in contact with each other they could explode, start a fire, or produce toxic vapors and gasses.

In order to prevent the dangerous commingling of incompatible hazmats use these safe loading practices:

- Understand and follow the DOT Segregation Table for Hazardous Materials. (see the next page)
- Keep containers upright. Don't roll or drop.
- Do not stack containers unless you are certain that the lower level can hold the weight.
- Be very careful with Class 8 corrosive liquids. They can damage the vehicle. They can eat through certain containers causing those materials to leak.
- Load storage batteries right side up. Make sure other cargo cannot short out the contacts.
- Keep compressed gas cylinders upright and braced, or in boxes or racks designed to keep them secure.
- Keep bottles of cryogenic liquids (extremely cold liquefied gases) upright and braced.
- Do not carry hazmat packages in the truck cab or sleeper berth.
- Keep packages labeled POISON or INHALATION HAZARD away from food.

The DOT Segregation Table for Hazardous Materials tells

which hazmats may – and may not – be loaded together in the same vehicle. [49 CFR §177.848(d)]

A blank space in the table means that the combination is allowed in the same vehicle.

X means do not load in the same vehicle.

0 means separate in a manner that will prevent the materials from commingling if a spill or leak occurs.

* means refer to the Compatibility Table for Class 1 explosives (on the next page).

DOT Segregation Table for Hazardous Materials													[49 CFR 177.848(d)]			8(d)]			
		1.1 & 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 Gas Z A	2.3 Gas Z B	3	4.1	4.2	4.3	5.1	5.2	6.1 PG 1 Z A	7	8 liquid
Explosives	1.1&1.2	*	*	*	*	*	Х	Х	Х	Х	х	Х	Х	Х	Х	Х	Х	Х	Х
Explosives	1.3	*	*	*	*	*	Х		Х	Х	Х		Х	Х	Х	Х	Х		Х
Explosives	1.4	*	*	*	*	*	0		0	0	0		0				0		0
Very insensitive explosives	1.5	*	*	*	*	*	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Extremely insensitive explosives	1.6	*	*	*	*	*													
Flammable gases	2.1	Х	Х	0	Х				Х	0							0	0	
Non-toxic, non-flammable gases	2.2	Х			Х														
Poisonous gases Zone A	2.3	Х	Х	0	Х		Х				Х	Х	Х	Х	Х	Х			Х
Poisonous gases Zone B	2.3	Х	Х	0	Х		0				0	0	0	0	0	0			0
Flammable liquids	3	Х	Х	0	Х				Х	0					0		Х		
Flammable solids	4.1	Х		Х					Х	0							Х		0
Spontaneously combustible	4.2	Х	Х	0	Х				Х	0							Х		Х
Dangerous when wet	4.3	Х	Х		Х				Х	0							Х		0
Oxidizers	5.1	Х	Х		Х				Х	0	0						Х		0
Organic peroxides	5.2	Х	Х		Х				Х	0							Х		0
Poisonous liquids P.G.I, Zone A	6.1	Х	Х	0	Х		0			Х	Х	Х	Х	Х	Х	Х			Х
Radioactive materials	7	Х			Х		0												
Corrosive liquids	8	х	Х	0	Х				Х	0		0	Х	0	0	0	Х		

DOT Segregation Table

Loading Explosives

It is dangerous to load certain kinds of explosives together with other kinds of explosives.

There are 13 **compatibility groups** for explosives. These are called A, B, C, D, E, F, G, H, J, K, L, N, and S.

The **DOT Compatibility Table for Class 1 Explosives** tells which explosives may – and may not – be loaded together in the same vehicle. [49 CFR §177.848(f)]

Group	٨	D	C	п	Б	Б	G	ц	I	V	т	N	ç
Group	A	D	C	D	E	Г	U	п	J	V	L	IN	3
Α		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
В	Х		Х	4	Х	Х	Х	Х	Х	Х	Х	Х	4/5
С	Х	Х		2	2	Х	Х	Х	Х	Х	Х	3	4/5
D	Х	4	2		2	Х	Х	Х	Х	Х	Х	3	4/5
Е	Х	Х	2	2		Х	Х	Х	Х	Х	Х	3	4/5
F	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	Х	4/5
G	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х	4/5
Н	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х	4/5
J	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	4/5
K	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х	4/5
L	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	1	Х	Х
N	Х	Х	3	3	3	Х	Х	Х	Х	Х	Х		4/5
S	Х	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	Х	4/5	

DOT Compatibility Table for Class 1 Explosives [49 CFR 177.848(f)]

A blank space means that no restrictions apply.

An **X** means that this combination may not be transported in the same vehicle.

The numbers refer to detailed notes in the DOT regulations that we have not printed here.

If you transport explosives you must have additional functionspecific training about specific rules and procedures for the explosives you handle.

If you transport explosives, you need additional function-specific training.

Notes:

Chapter 12



Handling Hazardous Materials

Learning Objectives

Chapter 12 discusses safe work practices when handling hazardous materials.

- 1. **Identify** three pieces of equipment used to move or handle hazardous materials.
- 2. Identify two ways to recognize that hazardous materials are present.
- 3. **Recognize** proper staging and segregation procedures of incompatible materials.
If the only response training you have is this awareness level course, then your responsibility – if a spill occurs – is to protect yourself by staying out of the contaminated zone so that specially trained responders can control and clean up the hazardous materials spill.

In order to remain in the contaminated zone you must have the right kind of protective clothing, and the right kind of respirator. You have to know how to use this equipment. In other words, you need special training and equipment.

This course does not provide training on how to use a respirator or how to select the proper protective clothing. This is why when there's a leak, spill or other emergency involving hazardous materials, your responsibility is to protect yourself by leaving the area and reporting the incident so that emergency workers who do have the proper training and equipment can respond to the situation.

You've learned about routes of entry so that you can understand how hazardous materials get into or on your body. This should make you realize that when a leak, spill or other hazardous materials emergency occurs, you will not be able to block theses routes of entry unless you have the proper protective equipment and are trained to use it.

Unless you are part of a specially trained and equipped emergency response team, your responsibility is to protect yourself by leaving the area and reporting the incident to the proper persons.

Respirators and Protective Clothing



Loading Hazmat Packages and Containers

It is important to load hazmat packages and containers properly so they will not be damaged and will not leak.

Before loading hazmat into a vehicle:

- Set the brakes and block the wheels. [49 CFR §177.384(e)]
- Be sure there are no exposed nails or other things that could damage packages or containers.
- Be sure absorbent material and a fire extinguisher are on hand.
- No smoking! [49 CFR §177.384(c)]

Check the hazmat packages to make sure they are:

- Not leaking.
- Free of damage.
- Compatible with each other.

When **loading hazmat** containers and packages:

- Don't throw or drop hazmat.
- Don't use pry bars that could damage containers.

[49 CFR §177.384(f)]

- Obey orientation arrows. (This side up) [49 CFR §177.384(b)]
- Block and brace cargo. [49 CFR §177.384(a)]
- Make sure hazmat is protected from falling and from other cargo falling on it.



Notes:

Chapter 13



Transporting Hazardous Materials

Learning Objectives

Chapter 13 discusses safe work practices when transporting hazardous materials.

- 1. **Identify** at least four safe work practices for driving vehicles carrying hazardous materials.
- 2. **Identify** four rules for parking vehicles containing hazardous materials.
- 3. Identify proper procedure for handling incidents.
- 4. Identify proper procedure for handling emergencies.

Rules for hazmat drivers. There are rules that you must follow when you drive a vehicle with hazmat:

- Refuel with the engine off. Someone must be at the nozzle at all times. [49 CFR §397.15(a) and (b)]
- Carry a fire extinguisher with a UL rating of at least 10 B:C in the power unit at all times.
- Check the tires at the start of your trip, and each time that you stop for a break. [49 CFR §397.17(a)]
- Stop 15 to 50 feet before the first railroad track. Do not shift gears while crossing the tracks.

Route plans. If you drive 1.1 or 1.2 explosives or large amounts of radioactive materials your company is required to have a written route plan. You must follow the route described on the plan, along with any other requirements of the plan such as safe places to stop.

Bridges and tunnels. Many bridges and tunnels are posted "no hazmat." As a driver, it is your responsibility to know which bridges and tunnels are restricted, and follow alternative safe routes.

Local permits and routes. Some state, local, or tribal governments have special rules for transporting hazmat. They might require a local hazmat permit or limit the routes you can take. It is your responsibility to know and obey these rules.

Driving Hazmat Vehicles



Parking Hazmat Vehicles

Rules for parking hazmat vehicles. There are rules that you must follow to safely park a hazmat vehicle:

- Do not park within 5 feet of a travel lane of a public street or highway – except for a brief period when absolutely necessary. [49 CFR §397.7(b)]
- If you do have to park a hazmat vehicle along a public roadway, then someone must be there to watch the vehicle while it is parked. The person watching the vehicle must: [49 CFR §397.5(d)]
 - Be awake.
 - Be within 100 feet and be able to see the vehicle.
 - Be aware of the hazmat in the vehicle.
 - Be able to move the vehicle if necessary.
 - Know what to do if an emergency arises.
- Do not park hazmat within 300 feet of an open fire. [49 CFR §397.11(b)]
- Do not park within 5 feet of the travel lane if the vehicle is carrying Division 1.1, 1.2 or 1.3 explosives.

[49 CFR §397.7(a)(1)]

When the driver is not at the vehicle's controls, the shipping papers must be in a holder inside the driver's door, or on the driver's seat. [49 CFR §397.11(b)]

The emergency response training that you receive in this course is **awareness level training**.

If an accident involving hazmat happens, **your responsibility** as an awareness level responder is to:

- Protect yourself.
- Alert the proper authorities.
- Help to keep others away.

Traffic accidents. If you are driving a vehicle with hazmat and there is a traffic accident, do all of the following that you can without risking your own safety:

- Park as safely as possible, i.e. away from traffic, people, water, and other known hazards, and turn off the engine.
- Take the shipping papers and Emergency Response Guidebook when you leave the vehicle.
- Put out warning signs. Do not put flares near the vehicle if it carries flammables, combustibles, oxygen, or explosives.
- Contact emergency response. Use your cell phone or radio if you have one. Otherwise, send someone else to contact emergency response personnel.
- Keep a safe distance away, but do not leave the scene until emergency responders arrive.
- Keep people away and upwind from the vehicle.
- Notify your employer (supervisor) by radio or phone as soon as possible.
- Provide information to the emergency response personnel when they arrive.



Parking safely means:

- Away from traffic
- Away from people
- Away from water
- Away from known hazards

Your Response to Leaks and Spills

Remember your job:

- Protect yourself
- Alert the proper authorities
- Help to keep others away

This training does not prepare you to stop a spill in a hazmat emergency. It does not prepare you to fight a fire. **Leaks and spills**. If you discover that hazmat is leaking from your vehicle or leaking from a container:

- Do not continue to load or handle materials.
- Do not continue to drive any further than safety requires. Park safely as soon as possible.
- Call your supervisor or the authorities.
- Keep others away from the area.
- Use the shipping paper, placards, labels and markings to identify the hazmat that is leaking.
- Do not touch, sniff, or taste the leaking materials.
- Keep a safe distance away, but do not leave the scene until emergency responders arrive.

Provide information. Lives depend on the information you provide to other responders such as the fire department. You need to know what hazmat you are carrying and have the shipping papers accessible.

Controlling the hazard. Stopping a leak or fighting a fire are jobs for operations-level responders.

Do not do the following unless you have operations-level response training and the proper equipment:

- Do not try to contain the material unless you can do it without exposing yourself to the material.
- Do not try to stop a leak unless you can do it without exposing yourself to hazardous material.
- Do not try to put out a fire with burning hazmat.

If a an accident happens with hazmat, the company is required to send a written report to DOT or to the state transportation agency.

This includes leaks and spills during loading, driving, unloading and temporary storage. The company has up to 30 days to send in the report. [49 CFR §171.16]

In serious hazmat incidents the company also has to **report immediately by telephone** to the **National Response Center** (NRC). [49 CFR §171.15]

There has to be an immediate telephone report if:

- Someone is killed.
- Someone is hospitalized.
- The public is evacuated for one hour or more.
- A traffic artery is shut down for one hour or more.
- There is a possible release of radioactive material.
- There is a possible release of an infectious substance.
- A spill of a marine pollutant more than 119 gallons or 882 pounds.
- A spill of a hazardous material equal to or greater than its Reportable Quantity (RQ).

If there is any doubt whether immediate reporting is required, **make the call.**

Report these incidents immediately to National Response Center (NRC): (800) 424-8802 (202) 267-2675 These numbers are also in the front section of the Emergency Response Gidebook (ERG).

If there is a possible release of an infectious substance you can call the Centers for Disease Control: (800) 232-0124 instead of or in addition to calling the NRC.

Chapter 14 Id Image: second secon

Learning Objectives

Chapter 14 discusses DOT and TSA security requirements for transporting hazardous materials.

- **Identify** two ways that hazardous materials might be used for criminal or terrorist activity.
- **Describe** six work practices that promote security in hazardous materials transportation.
- **Describe** the background check requirements for a Commercial Drivers License (CDL) hazardous materials endorsement.
- **Describe** the background check requirements for a Transportation Worker Identification Credential (TWIC).

There are over 800,000 shipments of hazardous materials every day in the United States. The majority of individual shipments travel by truck.

It is possible to imagine several ways in which hazmat and hazmat vehicles could be used as:

- Targets of a criminal or terrorist attack.
- Weapons in a criminal or terrorist attack.

Several incidents of this nature have occurred. A significant example was the 1995 bombing of the Federal Building in Oklahoma which used a truck containing an explosive mixture of ammonium nitrate and diesel fuel.

Specific security practices for drivers include:

- Know your company's hazmat security plan.
- Check seals and cargo compartment locks.
- Do not discuss cargo, routes or security with unauthorized persons.
- Do not discuss hazmat over the CB radio.
- Lock the vehicle when unattended.
- Park where you will be able to watch the vehicle.
- Do not pick up hitchhikers.
- Maintain communication with the dispatcher.
- Follow a safe assigned route and report delays.
- Ask for identification and verify that only an authorized person receives the shipment.

Hazmat Security Threats

The materials used in the Oklahoma City bombing were DOT regulated hazmats.

> Methods to Enhance Hazmat Security

Recognizing and Responding to Hazmat Security Threats

Use common sense. Preparation and response to hazmat security threats are similar to what you ought to do in any case to avoid theft or hijacking.

In-Depth Security Training

In-depth training about the specifics of your company's hazmat security plan is additional training beyond what this manual provides. You are best prepared if the company has a comprehensive security plan and you are familiar with it.

If you notice suspicious activity or feel that your facility or vehicle is threatened, consider these responses:

- Notify the dispatcher or supervisor.
- Call 911.
- Avoid being boxed-in.
- Do not stop in an isolated area.
- Keep moving if possible and drive to a well lighted safe location.

DOT requires your employer to provide you with training about the company's security plan and procedures:

- **Company security objectives:** What the company seeks to accomplish with its hazmat security plan.
- **Specific security procedures**: Specifically what to do to prevent, recognize, and respond to threats.
- **Employee responsibilities**: What your specific security responsibilities are.
- Actions to take: Specific procedures in the event of a hazmat security incident.
- **Organizational structure**: Who is responsible for what with regard to hazmat security.

Companies that are shippers or carriers of hazardous materials are required to have a **hazmat security plan**. The plan must be in writing. In order to prepare its security plan, the company needs to analyze what potential security threats exist and how to address those threats.

Companies involved in the transportation of certain quantities and types of hazardous materials are required to have a written hazmat security plan:

- Shippers: Companies that offer hazardous materials for transportation.
- Carriers: Companies that transport hazardous materials.

The security plan requirement applies to shippers and carriers of hazardous materials, not receivers. If your company receives hazardous material shipments and uses the hazardous materialbut does not offer them for further shipment and does not transport them - then it is not required to have a hazmat security plan.

The types of hazmat that trigger the security plan requirement are:

- Classes and quantities that are required to be placarded.
- Large bulk quantities of hazardous materials. Even if they are not required to be placarded.
- Any select agent or toxin regulated by the Centers for Disease Control.

Hazmat Security Plans

If a company ships or transports any of these three categories of hazmat, then it must have a written security plan.

Hazmat Security Plans

To the TSA, "personnel security" means making sure that workers are not known security threats.

The hazmat security plan must address three issues:

- Personnel security.
- Preventing unauthorized access.
- Security en route.

Personnel security:

- Verification of the employee's identity, references, work history, etc.
- Employee background checks.

Preventing unauthorized access:

- Locks and control of who has keys or access.
- Identification and badges.
- Inventory records and controls.
- Alarms and video monitoring.
- Security guards and watch people.

En route security:

- Driver and receiver identification.
- Vehicle locks and cargo compartment seals.
- Planned routes and stops.
- Communication with the dispatcher and police.
- Satellite tracking.

In order to obtain a hazmat endorsement for a commercial driver's license (CDL) or to renew a hazmat endorsement, the driver must:

- Submit fingerprints.
- Pass a background check.

Fingerprints:

Drivers applying for a hazmat endorsement must submit their fingerprints.

Citizenship or legal right to work in the United States:

The applicant must be either:

- A citizen of the United States.
- A lawful permanent resident of the United States.

Criminal record:

The applicant must not have a disqualifying criminal offense for which he or she:

- Was convicted (or found not guilty by reason of insanity) within the past seven years.
- Was released from incarceration within the past five years.
- Is wanted or under indictment.

Mental Health:

The applicant must not have a mental defect. A person with a mental defect is someone who has been:

- Adjudicated to have a mental defect.
- Involuntarily committed to a mental institution.

Background Checks for Hazmat Drivers

Background Checks for Hazmat Drivers

Whether the person poses a security threat:

The Transportation Security Administration can find that the applicant poses a security threat if the TSA determines or suspects that the person poses a threat involving:

- National security.
- Transportation security.
- Terrorism.

Driver pays the fees.

The state agency that processes the application may charge a fee for fingerprinting and for the background check. The driver is responsible for paying this fee. Many employers will pay this fee for their drivers.

Hazmat Endorsement- Disqualifying Criminal Offenses

- (1) Terrorism
- (2) Murder
- (3) Assault with intent to murder
- (4) Espionage
- (5) Sedition
- (6) Kidnapping or hostage taking
- (7) Treason
- (8) Rape or aggravated sexual abuse
- (9) Explosives, firearms, or weapons violations
- (10) Extortion

- (12) Robbery
- (13) Arson
- (14) Controlled substances
- (15) Fraud
- (16) Sever transportation security incident
- (17) Improper transport of hazmat
- (18) Bribery
- (19) Smuggling
- (20) Immigration violations
- (21) RICO
- (22) Conspiracy or attempt to commit any of (1) through (20)

Notes: