



Training Solutions, Delivered!

DOT HAZMAT SAFETY TRAINING

**Leader's Guide, Fact Sheet
& Quiz**

Item Number: 4400

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This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

4400 DOT HAZMAT SAFETY TRAINING FACT SHEET

LENGTH: 16 MINUTES

PRODUCTION YEAR: 2018

PROGRAM SYNOPSIS:

Hazardous materials can cause trouble if they aren't handled carefully. Leaks, spills and explosions of hazardous materials can result in serious injuries to people, damage to property and harm to the environment. If hazardous materials get into the hands of terrorists, they can easily be transported to population centers or industrial targets, with devastating results. Knowing how to handle these materials before, during and after transport allows them to reach their destinations safely no matter how they are being shipped.

This training program is designed to do three things: 1) Make employees aware of DOT regulations on handling and transporting hazardous materials; 2) Help employees to recognize and identify any hazardous materials they encounter; and 3) Prepare employees to handle and transport hazardous materials safely.

PROGRAM OBJECTIVES: After watching the program, the participant should:

- Understand the general areas covered by the DOT Hazardous Materials Regulations as well as the purposes behind the regulations.
- Understand what information about hazardous materials can be found on Shipping Papers, in the Hazardous Materials Table, on Safety Data Sheets and in other sources.
- Recognize "warning indicators" such as "Hazard Class" labels and placards.
- Be aware of the safe work practices that should be followed when handling and transporting hazardous materials.
- Know how to use appropriate personal protective equipment when dealing with hazardous materials.
- Know how to deal with emergency situations, including fires and spills.
- Be aware of basic first aid procedures that should be used in case contact with hazardous materials occurs.

PROGRAM OUTLINE

INTRODUCTION

- Many different types of hazardous materials are used in business every day. They heat our buildings, help us to maintain the equipment we use and play important roles in many manufacturing processes.
- But if they aren't handled carefully, hazardous materials ("HAZMATs") can also create serious problems. Leaks and spills of these substances can cause injuries and fatalities, property damage, and harm to the environment. HAZMATs could also be used by terrorists as weapons in an attack.
- But these hazards can be controlled by following safe procedures that have been spelled out in regulations established by the U.S. Department of Transportation (the DOT). In this program, we'll discuss these regulations, how they affect the shipping process and what you can do to work more safely with HAZMATs.

DOT HAZMAT REGULATIONS AND TRAINING

- Shipping just about any product follows a fairly standard process. First an order is called in and warehousing pulls the product, then the Shipping Department packs it and sends it out. The product is delivered via land, sea or air carrier and is finally received at its destination.
- It can all be pretty routine, and if something goes wrong it's normally not a huge problem. But when the product that is being transported is a hazardous material, it's especially important to follow proper procedures every step of the way. Because with HAZMATs if something goes wrong it can be a disaster!
- Highway accidents, train derailments, plane crashes and other mishaps are bad enough when everyday cargo is involved. But whether a HAZMAT incident takes place on a loading dock or in transit, it can not only affect the people who are directly involved in the event but also the surrounding community and environment, sometimes for years to come.
- It is to prevent hazards like these that the "DOT" has established regulations to help ensure that HAZMATs get where they're going safely. The rules, included in Title 49 of the Code of Federal Regulations Subchapter C, Parts 100 to 185, are known as the "Hazardous Materials Regulations", or "HMR".
- Employers are required to provide employees like you who handle hazardous materials with training on these DOT rules. This DOT HAZMAT Safety Training provides the information you will need to recognize HAZMATs in your workplace and identify the hazards that are associated with them.
- The training also discusses DOT regulations for transporting HAZMATs, procedures for shipping, receiving and storing them safely and how to respond quickly and effectively in a HAZMAT emergency.

HAZMAT LABELS, PLACARDS AND HAZARD CLASSES

- To work safely with HAZMATs, you need to be able to identify them and their hazards as soon as possible. That will help you to anticipate any problems that may arise and take steps to prevent them. So the Department of Transportation requires all containers of hazardous materials and all vehicles that transport them... to display "Hazard Class" labels and placards. These will let you know, even at a distance, or when they're in motion, that the cargo requires special handling.
- The Hazardous Materials Regulations specify the shape, size and color of the labels and placards, as well as the types of information that they need to communicate. The most important of these is a material's "Hazard Class". The DOT has defined nine of them.
- Class 1 is made up of explosives. Class 2 consists of all gases. Class 3 is comprised of flammable liquids. Class 4 is made up of flammable solids, including those that are spontaneously combustible and dangerous when wet. Class 5 consists of oxidizers and organic peroxides. Class 6 includes substances that are poisonous and infectious. Class 7 encompasses all radioactive materials. Class 8 contains corrosives. Class 9, called "Miscellaneous Hazardous Materials" includes any hazardous substance that doesn't clearly fit into one of the other eight categories.
- DOT Hazard Class labels and placards enable workers, law enforcement personnel and first responders to tell at a glance the hazards that are associated with the material that is being transported.

SHIPPING PAPERS AND EMERGENCY RESPONSE INFORMATION

- The DOT's Hazardous Materials Regulations require "Shipping Papers" and emergency response information to accompany every HAZMAT shipment. Shipping Papers provide a basic description of a material including its "Identification Number" and "Proper Shipping Name".
- They must also include its "Hazard Class", "Division Number" and "Packing Group" which indicate the type of hazards the material presents and the degree of danger that is associated with the substance.
- The HMR require the Shipping Papers to present the information in this order with no additional information mixed in. The papers must also contain a 24-hour emergency response telephone number that can be used to reach someone who has a detailed knowledge of the material that is being transported.
- HAZMAT shippers must ensure that Shipping Papers are included with all hazardous materials that they send out.
- The HMR also requires detailed emergency response information to accompany all HAZMAT shipments. It may be included on the Shipping Papers or can be in a separate document.
- In addition to a material's basic description, emergency response information should include its immediate health hazards, handling precautions and first aid that should be given to anyone exposed to it, procedures for dealing with spills or leaks and details on any risk of fire and explosion, as well as what to do if the substance starts to burn.
- The DOT requires that the Shipping Papers and the emergency response information travel in the cab of the vehicle that is transporting the material.

USING THE DOT EMERGENCY RESPONSE GUIDEBOOK

- When hazardous materials leak or spill, seconds count. You need to be able to make informed and effective decisions ASAP so you can try to bring the situation under control.
- That's why the DOT has compiled technical information and safety procedures about as many hazardous materials as possible in a convenient "Emergency Response Guidebook".
- To make it easier and quicker to use, the Guidebook takes advantage of the fact that many HAZMATs have similar characteristics. This makes it possible to organize emergency response actions into an easy-to-reference set of "sub-guides".
- In the event of a HAZMAT incident, you look up the material that's involved and are pointed to the "sub-guide" that contains the response information you need. The information in the Guidebook is divided into four color-coded sections.
- The first two help you to identify the correct "sub-guide" for the material in question. If you know the HAZMAT's four-digit chemical identification number, you can look it up numerically in the Guidebook's yellow section. Or you can use the blue pages to look it up alphabetically by its Proper Shipping Name.
- Both these sections will provide you with the number of the appropriate "sub-guide" which you can then find in the orange pages. This is the section that describes the emergency actions that should be taken.
- The green pages in the Guidebook provide information on how to isolate a spill and limit people's exposure to the hazardous material that has been released.
- Remember that important information about any hazardous material can also be found on its Safety Data Sheet ("SDS").
- Among other information, the SDS will tell you about the material's health hazards, the protective measures you should use when handling it and what type of first aid should be given to someone who has been exposed to it.

SHIPPING AND RECEIVING HAZMATs

- Shipping and receiving are where you are most likely to get hands on with HAZMATs that are in transit. The DOT's Hazardous Materials Regulations provide a number of safe work practices for you to follow.
- HAZMAT shipping safety begins with accurately describing the hazardous material that is being transported in the Shipping Papers that will accompany it, then marking and labelling the package accordingly. This provides critical technical and safety information for the people that will handle the shipment down the line.

- You should make sure that a HAZMAT's containers, packaging and labelling are all in good condition. Never pack or send out containers that have been damaged or have labels that are torn or illegible, and only use packaging that has been approved by the DOT for that particular material.
- Always handle hazardous materials with care. Pay attention to markings such as "This End Up" and "Do Not Stack".
- Whatever vehicle will be used to transport the material should be carefully inspected to verify that it's in good condition and properly placarded.
- Make sure the Shipping Papers and emergency response information accompany every shipment of hazardous materials that you send out.
- When hazardous materials shipments arrive at your facility, take a good look before you accept them. You should reject any packages that arrive without accurate Shipping Papers, are improperly marked or labeled, or have been damaged in any way. Do not handle any HAZMAT until you have determined the identity of the material and its hazards.
- Be sure to follow any special precautions that the substance requires and wear the appropriate personal protective equipment while handling it.
- Note what type of first aid should be given to someone who is exposed to the substance, as well.
- If you are going to be storing a hazardous material for any length of time, you should determine whether it has any special requirements regarding the temperature, humidity or light exposure in the storage area or if it should be stored away from any other materials.
- All of this information can be found in the documentation that accompanies the shipment as well as on its SDS.

HAZMAT EMERGENCIES AND EXPOSURE

- Even when we do our best to follow safe work practices, when we're working with hazardous materials, things can still go wrong. Events such as hurricanes, wildfires and earthquakes, are completely beyond our control but we still need to be able to respond to them effectively.
- This is why facilities like yours are required to create a written Emergency Action Plan that describes exactly what should be done in different types of crisis situations including a HAZMAT emergency. You should be aware of your role in the Plan and may already have received training in what to do and when to do it.
- In any case, you should familiarize yourself with the Emergency Action Plan. It's available to all employees. If you have any questions about your part in the Plan, talk to your supervisor.
- If an emergency does occur, follow the Plan. Do not try to improvise on the spur of the moment.
- During a HAZMAT incident, people may be exposed to harmful substances. In most cases, a short-term exposure will result in a sudden reaction such as a rash or burn but will cause no lasting health problems. However, the more hazardous the material, and the longer the duration of exposure, the greater the chances of experiencing more severe health effects.
- Another concern during a HAZMAT emergency is the potential contamination of the environment outside your facility. This can happen very quickly if liquid HAZMATs spill into an outlet like a storm drain or sewer.
- If you see hazardous materials leaking into any type of drain, alert your supervisor or emergency response personnel immediately.

CONCLUSION

- As we've seen, hazardous materials can pose significant challenges during the shipping process. But there are regulations and procedures that you can follow to prevent problems while you're working with these substances. Let's review.
- Be aware of DOT HAZMAT regulations and know how they apply to the work you do.
- Know the sources of information you can use to determine the hazards, safety precautions and emergency response procedures for any hazardous material that you work with.
- Know the safe work practices you should use when shipping and receiving HAZMATs.
- Understand the role you play in your facility's Emergency Action Plan regarding incidents that involve hazardous materials.
- Hazardous materials require extra care and attention throughout the shipping process. But now that you understand the risks and know the safety procedures to follow, you can help ensure that the HAZMATs you work with will travel trouble-free... every day.

DOT HAZMAT SAFETY TRAINING

ANSWERS TO THE REVIEW QUIZ

1. a
2. b
3. b
4. a
5. b
6. a
7. b
8. a
9. a
10. a

DOT HAZMAT SAFETY TRAINING
REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

Name _____ **Date** _____

1. DOT HAZMAT Safety Training provides the information that employees need to recognize HAZMATs in their workplace and understand the hazards that are associated with them.
 - a. True
 - b. False

2. DOT Hazard Class labels display so much information that workers have to study them closely to find the facts that they need.
 - a. True
 - b. False

3. Hazard Class 1 includes any hazardous substance that doesn't clearly fit into one of the other eight Hazard Classes.
 - a. True
 - b. False

4. Shipping Papers and emergency response information should travel in the cab of a HAZMAT delivery vehicle.
 - a. True
 - b. False

5. HAZMAT Shipping Papers contain enough basic information about the materials that there is no need to include a 24-hour emergency contact phone number.
 - a. True
 - b. False

6. Information on how to isolate a HAZMAT spill and limit people's exposure to the material is provided in the green pages of the DOT's Emergency Response Guidebook.
 - a. True
 - b. False

7. When handling HAZMATs, you can disregard markings on packages or containers that don't pertain to their chemical hazards, such as "This End Up" and "Do Not Stack".
 - a. True
 - b. False

8. When preparing a HAZMAT for shipment, you should only use the type of packaging that has been approved by the Department of Transportation for that particular material.
 - a. True
 - b. False

9. A facility's written Emergency Action Plan provides a detailed description of what should be done in different types of crisis situations.
 - a. True
 - b. False

10. If you ever see hazardous materials leaking into any type of drain, you should alert your supervisor or emergency response personnel immediately.
 - a. True
 - b. False