



# D.O.T. Hazardous Materials Transportation

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PSC

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# Overview

- Applicability
- Penalties
- CFR 49
- Security Plans

# Applicability 171.2

- No person may offer or accept a hazardous material for transportation in commerce unless it is properly classed, described, packaged, marked, labeled, etc.
- No person may transport ....etc.

# Penalties

- CIVIL

- Minimum \$ 275.00

- Maximum \$ 32,500.00

- Per violation

- Per day

# Penalties (cont.)

- CRIMINAL
  - \$ 250,000
  - 5 years imprisonment
  - Or both

# CFR 49

- Part 172      Communication
- Part 173      Shipper
- Part 178      Packaging



# Communication

# Part 172



- Shipping paper
- Marking
- Labeling
- Placarding
- Emergency Response Information
- Training

# Shipping a Hazardous Material

- Step 1: Does it meet the definition of a Hazardous Material?
- Step 2: Is it a Hazardous Waste?
- Step 3: Is it a Hazardous Substance?
- Step 4: Is it a Marine Pollutant?

# Shipping a Hazardous Material (cont.)

- Step 5: Locate the material in the “TABLE”.
- Step 6: Does the material have any restrictions and is it a proper shipping name?
- Step 7: Develop the “Basic Description”.
- Step 8: Are there any Special Provisions?

# Shipping a Hazardous Material (cont.)

- Step 9: Select the appropriate packaging.
  - A. Bulk or Non-Bulk?
  - B. Exceptions?
  - C. Compatible with this material?
- Step 10: Apply marking and labeling.

# Shipping a Hazardous Material (cont.)

- Step 11: Determine segregation and stowage requirements.
- Step 12: Prepare Shipping Paper (Manifest.)
- Step 13: Provide emergency response information.
- Step 14: Affix appropriate Placards.

# Definition of Hazardous Material

- A substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has been designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 US, 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (see 49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in part 173 of subchapter C of this chapter.

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# Is it a Hazardous Waste?

Hazardous waste, for the purposes of this chapter, means any material that is subject to the Hazardous Waste Manifest Requirements of the **U.S. Environmental Protection Agency** specified in **40 CFR part 262**.

# Is it a Hazardous Substance?

A material, including its mixtures and solutions, that:

1. Is listed in Appendix A,
2. Is in a quantity which equals or exceeds the reportable quantity (RQ),
3. AND is in one package.

# Is it a Marine Pollutant?

Marine Pollutant means a material which is listed in appendix B to 172.101 of Subchapter C.

Not regulated in non-bulk packages unless going on vessel.

# Locate the Material in the Hazardous Material Table

- Is it a proper shipping name?
- Is it in Roman print? *Not italics.*
- Confirm spelling.
- Are there any restrictions?      Columns 1 or 3

# Develop the” Basic Description”

S

H

I

P

# Develop the “Basic Description”

Shipping name

Hazard class

Identification number

Packing group

# Check Any Special Provisions

- Column 7
- Your package?
- Your Mode of Transportation?

# Determine Packaging

- Column 8
- Exceptions
- Non-Bulk packaging
- Bulk Packaging
- Compatibility

# Confirm Packaging

- Non-bulk
  - Performance Oriented Packaging
  - Check package codes
  - X, Y, Z

# Confirm Packaging (Cont)

- Bulk Packaging
  - Cargo tanks
  - Portable tanks
  - Boxes or Bags
  - Specifications
  - Special provisions
  - Shipper knowledge

# Determine Marking Requirements

- Is your package bulk or non-bulk? Be in the right section.
- Are there additional marking requirements?  
Arrows, RQ, PIH, etc
- Where to apply.
- How many?
- What size?

# Determine Labeling

- Primary and Subsidiary
- Where to apply.
- How many. Multiple or Duplicate
- Placards instead?

# Determine Segregation

- Segregation Table      177.848
- Acid and Base
- Cyanide with Acid
- Shipper Knowledge
- Specific sections

# Prepare Shipping Paper (Manifest)

- Basic Description
- Sequence
- Additional information 172.203
- Amount and Unit of Measurement
- Emergency Phone Number
- Additional information for Manifests

# Emergency Response Information

- MSDS
- Emergency Response Guidebook
- Other Document



# DOT Exemptions

- Package
- Material
- Segregation
- Notification
- Maintenance

# Security Plan

- If you must register, 107.601
- If you offer or transport select agents or toxins regulated by CDC in 42 CFR Part 73

# Security Plan (cont)

- If you must register 107.601
  - A. Highway route controlled quantity of a Class 7
  - B. More than 55lbs of Division 1.1, 1.2, 1.3
  - C. More than 1 Liter per package of a material poisonous by inhalation in hazard Zone A
  - D. Bulk packaging with a capacity equal to or greater than 3500 gal or 468 cubic feet
  - E. Non-bulk packaging of 5000 pounds gross weight or more of one class of hazardous materials for which placarding is required
  - F. A shipment that requires placarding

# Security Plan (cont)

- Personnel security
- Facility, unauthorized access
- En route Security

# Training

- General awareness/familiarization
- Function-specific
- Safety
- Security awareness
- In-depth security training
- Initial and recurrent