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Subj: **Hazardous Materials General Awareness (HMT-0010)**

This web-based training course was developed by ShipMate, Inc., in cooperation with ShipMate™ University.com.

This course is intended for those persons and facilities that receive handle or offer into transport, all or in part by surface, air or vessel, hazardous materials (or dangerous goods). This course fulfills the U.S. Department of Transportation's hazardous materials transportation training requirements for: (1) general awareness and familiarization; and (2) general safety; and (3) function-specific training for the following transportation and pre-transportation functions:

- determining the hazard class of a dangerous goods;
- marking a non-bulk package to indicate that it contains a hazardous material;
- labeling a package to indicate that it contains a dangerous goods in limited quantities;
- preparing a shipping paper for limited or excepted quantities, if applicable;
- providing and maintaining emergency response information, when required; and
- reviewing a shipping paper to verify compliance with the HMR.

Note: It is important to note; however, that additional training is required to fulfill the U.S. DOT's hazardous materials training requirements.

You should print and maintain a copy of this course syllabus and overview on file at your facility. It is recommended that you provide a copy of this document in the event of a regulatory agency (e.g., DOT) inspection.

If this course does not address all of the hazardous materials transportation or pre-transportation functions that may be performed by your facility. If you have any questions regarding this or other hazardous materials training programs, or need any assistance, please call the course authors, ShipMate, Inc. at +1 (310) 370-3600.

Respectfully,

Steven Charles Hunt  
ShipMate, Inc.

## **Course Syllabus**

### **Hazardous Materials General Awareness (HMT-0010)**

**Initial:** 8 hours

**Recurrent:** 8 hours

#### **Introduction**

Title 49, Code of Federal Regulations, Subchapter C is discussed in detail, including the advent of the regulations, the governmental agencies which are responsible for the development and enforcement of these regulations, the use of the 49 CFR within the United States, the role of the United Nations Recommendations on the Transport of Dangerous Goods in the development of the current U.S. laws, and the structure of the 49 CFR. Each part is discussed in detail, including the General Requirements (171), Hazard Communication & Documentation (172), Packaging (173) and the modal specific requirements for Air (175), Rail (177), Ocean (176) and Highway (177). The Hazardous Materials Table and Appendices A and B are dissected and reviewed.

#### **Classification**

Each of the nine internationally recognized hazardous materials classes are evaluated including the accident history, physical and chemical properties of each and the subdivision of the first six hazard classes. Examples of relevant products are given for each. Marine pollutants, hazardous substances, hazardous wastes, mixtures and solutions, not otherwise specified (N.O.S.) categories are defined and evaluated. The use of the "mixing rules" and the determination of hazard precedence are discussed in brief. Limited quantities and consumer commodities are also discussed in some detail, including the economic advantages of packaging subdivision.

#### **Hazard Communication**

The domestic and international marking, labeling and placarding requirements are compared and contrasted. Inner packagings, packages, overpacks and cargo transport unit marking, labeling and placarding issues are discussed. Relevant examples of each are offered and discussed in class.

#### **Documentation**

Documentation, including Bills of Lading, Waybills, Dock Receipts, Certificates and Declarations are highlighted in this session. Tips and tools for preparing accurate and complete information for dangerous goods consignments are developed and offered. Relevant examples are used to illustrate the effectiveness of the tips and tools that are offered.

#### **Packing and Packaging**

Packaging selection and design are discussed, including the use of United Nations Performance Oriented Packagings and U.S. DOT Specification packagings. Nonbulk, bulk and intermediate bulk packagings are compared and contrasted. Current packaging marking, manufacturing and testing methods and principles are discussed.

#### **Segregation**

Compatibility of hazardous materials is discussed. Students will be able to determine the appropriate segregation distances for hazardous goods within trailers and containers using the segregation schedules that are offered in class. Segregation between hazardous and non-hazardous goods is also discussed.

## **Emergency Response Procedures**

Students will learn how to reduce the risk associated with the carriage of dangerous goods, including preventative measures, risk analyses, performing quality control checks and pre-trip inspections. Students will learn what types of information and equipment is required for a successful mitigation and the appropriate costs for a hazardous materials clean-up operation.

## **Certification & Other Topics**

The course will also address any relevant issue(s) brought up by the participants and will include detailed relevant discussions. Certificates of Completion are awarded to participants achieving an 80% or better on the examination. Certificates of Attendance are given to participants who do not achieve an 80% or better and an opportunity to take the course/exam again at no cost is given.

# HAZARDOUS MATERIALS GENERAL AWARENESS

