



ShipMate, Inc.
780 Buckaroo Trail, Suite D
Sisters, OR 97759-0787
Tel: +1 (310) 370-3600
Fax: +1 (310) 370-5700
E-mail: shipmate@shipmate.com

January 1, 2021

Subj: Transport of Automotive Hazardous Materials for Service Technicians (HMT-0432)

This web-based training course was developed by ShipMate, Inc., in cooperation with the Coordinating Committee For Automotive Repair (CCAR) and The North American Automotive Hazmat Action Committee (NAAHAC).

This course is intended for those persons and facilities that receive, handle, or ship automotive hazardous materials by surface transportation. This course fulfills the U.S. Department of Transportation's hazardous materials transportation training requirements for: (1) general awareness and familiarization; (2) general safety; (3) hazardous materials security awareness; and (4) function-specific training for the following transportation and pre-transportation functions:

- determining the hazard class of a hazardous material;
- selecting a hazardous materials packaging;
- filling a hazardous materials packaging;
- securing a closure on a filled or partially filled hazardous materials package;
- marking a package to indicate that it contains a hazardous material;
- labeling a package to indicate that it contains a hazardous material;
- preparing a shipping paper;
- providing and maintaining emergency response information;
- reviewing a shipping paper to verify compliance with the HMR; and
- certifying that a hazardous material is in proper condition for transportation in conformance with the requirements of the HMR.

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 you perform, or 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.

Web-Based Training (WBT)**Transport of Automotive Hazardous Materials for Service Technicians (HMT-0432)****Module 1****Introduction**

- Lesson 1 Hazardous Materials Overview
- Lesson 2 Consequences
- Lesson 3 Responsibilities
- Lesson 3 Training
- Lesson 4 Regulatory Authorities
 - Federal Aviation Administration (FAA)
 - Federal Railroad Administration (FRA)
 - Federal Motor Carrier Safety Administration (FMCSA)
 - Pipeline and Hazardous Materials Safety Administration (PHMSA)
 - United States Coast Guard (USCG)
- Lesson 5 Regulatory Requirements Overview
49 CFR subchapter C

Module 2**Classification**

- Lesson 1 Accident History
 - Texas City, TX – 1947
 - Bhopal, India – 1984
 - ValuJet 592 – 1996
 - FedEx 1406 – 1996
 - UPS 1307 - 2006
- Lesson 2 Physical & Chemical Properties
 - Explosive
 - Corrosive
 - Flammable
 - Combustible
 - Reactive
 - Radioactive
 - Toxic
 - Elevated Temperature
 - Elevated Pressure
- Lesson 3 International Classification
 - Class 1 – Explosives
 - Class 2 – Gases
 - Class 3 – Flammable Liquids
 - Class 4 – Solids
 - Class 5 – Oxidizers & Organic Peroxides
 - Class 6 – Toxic Materials
 - Class 7 – Radioactive Materials
 - Class 8 – Corrosive Materials
 - Class 9 – Miscellaneous Dangerous Goods

Module 3	Automotive Hazardous Materials
Lesson 1	Electrical System Battery Speakers Cable Cutters (Battery Disconnects)
Lesson 2	Fuel System Fuel Pumps, Injectors & Rails Fuel Lines Fuel Pressure Regulators Charcoal Canisters Gas Tanks, Filler Necks & Gas Caps
Lesson 3	Power Train Engines
Lesson 4	Passenger Safety Air Bag Modules Driver-Side Airbags Passenger-Side Airbags Side Impact (Thorax) Air Bags Knee Bags Air Curtains Seat-Belt Pretensioners
Lesson 5	Steering & Suspension Accumulators Brake Boosters
Lesson 6	Paint & Body Lift Gate Supports Windshield Washer Fluid (concentrate) Paint & Paint Related Materials Adhesives & Coating Solutions
Lesson 7	Accessories Flares Fire Extinguishers Tire Inflators Cleaning Compounds After-Market Auto-Care Products

Module 4 Hazard Communication

- Lesson 1 Package Marking & Labeling
TULIP
- Lesson 2 Overpacks, Unit Loads & Cages
Overpack
PILOT
- Lesson 3 Limited Quantities
- Lesson 4 Consumer Commodity Changes
- Lesson 5 Excepted Quantities

Module 5 Lithium Batteries and Hybrid & Electric Vehicles

- Lesson 1 UN38.3 Lithium Battery Testing Requirements
- Lesson 2 Fully Regulated Batteries Overview
Energy Ratings (in Wh)
- Lesson 3 Lithium Metal Cells – Fully Regulated
- Lesson 4 Lithium Metal Batteries – Fully Regulated
- Lesson 5 Lithium Ion Cells – Fully Regulated
- Lesson 6 Lithium Ion Batteries – Fully Regulated
- Lesson 7 Lithium Cell & Battery Packaging
Cargo Aircraft Only Labels

Module 6 Packaging

- Lesson 1 Forces Encountered in Transportation
- Lesson 2 UN POP Marking
- Lesson 3 DOT Marking
Cylinders
- Lesson 4 Non-Specification Packaging ('Strong' Outer Packaging)
- Lesson 5 Packing
- Lesson 6 Damaged Packaging
Packaging Evaluation

Module 7 Documentation

- Lesson 1 Basic Description
- Lesson 2 Required Information
- Lesson 3 Additional Descriptive Information
- Lesson 4 Emergency Response Information
Emergency Response Telephone Number
Emergency Response Information
ERT Service Providers
- Lesson 5 Recordkeeping Requirements

Module 8 Handling & Transportation

- Lesson 1 Safety Data Sheets
- Lesson 2 SDS Requirements
 Responsibility
 Availability
- Lesson 3 Safe Handling Procedures
 Storage

Module 9 Emergency Response

- Lesson 1 Initial Response Actions
- Lesson 2 Reporting & Notifications
- Lesson 3 Spill Response Procedures
 Spill Control
 Spill Treatment
 Spill Safety
- Lesson 4 Spill Response Equipment

Module 10 HM Security

- Lesson 1 HM Security Awareness
- Lesson 2 HM Security Plan Requirements
 Personnel Security
 Site Security
 En Route Security