



Safety Instruction

Transporting Hazardous Materials

OSU employees, in the course of their duties, occasionally transport small quantities of laboratory chemicals or other hazardous materials to a research site, laboratory, or job location. This can occur while using either a university-owned or a personal vehicle while traveling on campus or on public roads. This Safety Instruction outlines the requirements, risks, and safe transport practices for OSU employees to follow when transporting hazardous materials.

Regulatory Background

- Transportation of hazardous materials is regulated by the U.S. Department of Transportation (DOT) and the Oregon Department of Transportation (ODOT). Both agencies' authority is derived from the Hazardous Materials Regulations (49 CFR 171-181). ODOT has adopted the federal standard for the state of Oregon. The regulations apply to the transportation of hazardous materials for commercial purposes.
- DOT rules list specific functions that are exempt from the federal standard when hazardous materials are being transported for noncommercial purposes. The exemption applies to "transportation of a hazardous material in a motor vehicle, aircraft, or vessel operated by a Federal, state or local government employee solely for noncommercial Federal, state, or local government purposes."
- For this Safety Instruction, the term "hazardous material" only applies to useable chemicals and compressed gases. It does not apply to hazardous waste, diagnostic specimens, biological or radioactive materials.
- Special transportation requirements exist for these materials. EH&S must be consulted for proper transportation of these items.

Acceptable Transportation Practices

- Transporting hazardous materials carries with it some risk to the driver and occupants of the vehicle and others on the road.
- Spilled chemicals within a vehicle can quickly create dangerous concentration levels that can either overcome the occupants or cause a flammable atmosphere. Spilled chemicals on a public roadway can also lead to expensive cleanup and traffic delays.
- In order to minimize these risks, the driver should implement these safeguards:
 - Label all chemical containers as to their contents.
 - Place previously opened containers into an impermeable secondary container such as a plastic tote bin. Make sure all containers used are compatible with the chemical to be transported. The use of secondary containers for unopened hazardous materials when in their original shipping box is not necessary as long as the container is made secure. Any secondary container that obscures a primary container's labeling must be labeled with the same information.
 - Transport compressed gas cylinders with the valve covers screwed on. Transport cryogens only in approved storage vessels (e.g. dewar flasks with pressure relief mechanisms).
 - If possible, place hazardous materials within the vehicle's trunk or cargo bed. Materials transported in a cargo bed should be made secure and be protected from the weather. If transporting more than one type of chemical, make sure incompatible chemicals are placed away from each other.
 - The driver should keep a copy of the material safety data sheet (MSDS) where it is easily accessible.
 - Bring along a spill kit appropriate for the chemicals transported. A spill kit should consist of personal protective equipment (gloves, goggles, etc.), absorbent material, shovel and/or broom and plastic waste bags for containerizing the wastes. Only attempt to clean up a spill yourself if it is safe to do so. If in doubt, call 911. Also carry a fire extinguisher with a rating of 10 B/C or greater.
 - Plan route and destinations to minimize travel time and distance while transporting hazardous materials. Do not leave chemicals stored in a vehicle.
 - For insurance reasons, it is highly recommended that employees use a university vehicle rather than a personal vehicle. Should there be an accident using a personal vehicle, some insurance carriers may not cover the claim. If you plan on using a personal vehicle, consult your insurance carrier for information on coverage.
 - If in doubt about how to safely transport a chemical or how to transport large quantities (greater than 5 gallons), contact EH&S at 541-737-2273.

Contact EHS:
safety@oregonstate.edu
oregonstate.edu/ehs/
541 • 737 • 2273