

Hazardous Chemical Training Guide

This Hazardous Chemical Training Guide is intended for use by supervisors, employees, and volunteers to identify and educate on the chemical hazards that may be faced in the workplace. It is essential that you familiarize yourself with these guidelines and be prepared to act calmly and with confidence in the event of hazardous chemical exposure. This guide is to be available for easy access to all personnel. New employees are to be familiar with this as part of their orientation program on the work area.

This guide meets the scope and application of OAR 437 Division 155 and Resource Conservation and Recovery Act (RCRA). Please contact the DAS Safety and Risk Office at 503-378-4202 with questions or comments.

Hazard Communication

Department of Administrative Services (DAS) uses hundreds of hazardous chemicals daily, from solvents and glues to paints, cleaners, and acids. For DAS to comply with Oregon Occupational Health and Safety Administration (OROSHA), employees have the right to know about the chemicals in the work area, to include location, health hazards, and safe handling precautions.

What is a hazardous chemical? A hazardous chemical may be one or a combination of the following physical or health hazards:

- combustible
- explosive
- flammable
- unstable
- sensitizer
- toxic
- irritant
- corrosive
- water reactive

Accountability - Supervisor. All Management staff with supervision oversight are required to ensure all hazardous chemicals are in their areas, in a container with *proper labeling*, have Material Safety Data Sheets (MSDS) available, and ensure all personnel who come in contact or potential contact with hazardous materials are trained in accordance with OR-OSHA regulations and the Federal “Right to Know” law.

Accountability - Employee. Staff, volunteers, and students who may come in contact with hazardous chemicals are required to know how the type of chemical is to be used, the hazards, location of MSDS and what procedures are required in the event of a chemical spill or exposure.

Chemicals are to remain in their original container. At no time is anyone to use a chemical if it meets one or more of the following criteria:

- The chemical is in a secondary container that does not have the correct labeling.
- The container is damaged or leaking.
- The person who is using the chemical has not been trained in the application of associated hazards of the chemical.

- The person using the chemical is not wearing the personal protective equipment recommended by the manufacturer.

Container Labeling provides employees with an immediate warning about the hazards of a specific material.

1. Containers may be any of the following:

- Can
- Storage tank
- Box
- Reaction vessel
- Drum
- Barrel
- Cylinder
- Etc.

2. Labeling must include:

- Clear listing of the contents;
- Any and all appropriate hazard warnings;
- Manufacturer's name and address;

3. Hazard warnings include:

- Written warnings;
- Visual warnings;
- Numeric warnings

Material Safety Data Sheets (MSDS)

A. What is a Material Safety Data Sheet (MSDS)? An informational sheet from the manufacturer of the chemical describing the physical and chemical characteristics; hazards; exposure limits and control measures; First Aid procedures; precautions for use; and personal protective equipment.

B. Who is responsible for the MSDS? Management with employees that may be exposed to chemicals is required to have the MSDS available in the work area. If a hazardous chemical does not have an MSDS available, the manager is required to request one through the supplier or manufacturer prior to its use at the work site.

MSDS Content:

Identification - physical or health hazard.

Physical and chemical characteristics - flash point, vapor pressure, and chemical stability

Physical Hazards - reactivity, explosiveness, and fire potential.

Health Hazards - signs and symptoms or medical conditions aggravated by exposure.

Routes of Chemical Entry into the body - such as inhalation, absorption.

Permissible Exposure Limits – What the level of chemical exposure not be exceeded.

Carcinogen - Potential of causing cancer

Precautions Necessary - for Safe use.

Control Measures to include - work practices, Personal protective equipment, Emergency and First Aid procedures, Date of MSDS preparation, Name, Address, and Telephone Number of person(s) responsible for MSDS.

Training

Training Includes:

- Type of and how the hazard communication labeling system works;
- How to obtain, read and use MSDS and other appropriate hazard information;
- Physical and health effects of the hazardous chemicals in their work area;
- Methods used to determine the presence or release of hazardous chemicals in the work area. (Many chemicals do not have an odor, gas or visible vapor.);
- How to reduce or prevent exposure to hazardous chemicals through procedures and personal protective equipment;
- Emergency procedures to follow if exposed to hazardous chemical;
- Location and use of hazardous chemicals;
- List and location of MSDS;

Hazardous Chemical Use Expectations:

- Each employee is responsible to use hazardous chemicals in a safely and consistent with the chemical labeling and MSDS.
- Employees are **NOT** to use chemicals found in unmarked containers or any chemical until properly labeled and MSDS are available.
- Each employee is to use appropriate personal protective equipment recommended by the chemical manufacturer and MSDS.

Hazardous Chemical Locations

- Each employee is to know the location of all hazardous chemicals and the related dangers in their work area.

MSDS Locations:

- Each employee is to know the location and have access to the MSDS for chemicals used in their area.
- Employees are to report to their supervisor if an MSDS is missing from work area.

Hazardous Chemical Spill/Exposure

A spill is any release of chemicals to the environment above the exposure limits set by the manufacturer or by law.

In the event of a chemical spill, you need to know:

- What a chemical spill consists of;
- Who to report spill to;
- When should evacuation take place;
- What is the area evacuation plan?

In the event of a hazardous chemical spill:

1. Move staff to safe area (up wind of spill).
2. Notify your Supervisor
3. Contain small spills.
4. Close doors and windows to limit exposure.
5. Wait for all clear by responders before returning to the spill area.

Hazardous Chemical Exposure may consist of:

- Chemical released into the environment above manufacturers suggested level of safety. Example: spilling ammonia on the floor in a small room.
- Unconsciousness of a person in or around chemicals. This area should not be entered into. Emergency personnel with protective equipment are to respond.
- Fume exposure may occur and cause a sense of burning or irritation to the mouth, nose, throat, chest, or eyes. Symptoms might also include dizziness or nausea and a strong odor may be in the air.
- Skin / Eye contact with a hazardous chemical is to be treated as described on the First Aid section of MSDS for the chemical.

For spill of 2 gallons or less, DAS will respond, for spill of over 2 gallons and less than 42 gallons call Spencer Environmental at 1-800-733-0896, and for spills of more than 42 gallons call Oregon

Emergency Response System at 1-800-452-0311 responders will evaluate the need for additional responders and determine proper cleanup technique to neutralize, absorb, or contain the chemical to the point it is no longer a safety or health threat. For all spills of more than 2 gallons, the City of Salem Public Works 24-hour dispatch needs to be notified at 503-588-6333