



GOALS

This safety session should teach employees to:

- Identify the potential risks of chemical exposure.
- Follow steps to reduce the chance of exposure.

Applicable Regulations: 29 CFR 1910.1200



1. Exposure to some chemicals can cause health problems.

Each chemical may present different health risks and different degrees of risk.

- Risk varies according to type, length of exposure, and repetition of exposure to the chemical.

2. Identify chemical hazards and protective measures before you start a job.

- Read a chemical's container label and safety data sheet (SDS) to identify health hazards and what type of exposure is dangerous.
- Health hazards can range from rashes and headache to cancer or even death.
 - Acute health effects develop quickly after exposure (e.g., rashes).
 - Chronic health effects develop after longtime exposure (e.g., lung disease).
- Health problems may develop from exposure due to:
 - Inhaling vapors or fumes (e.g., dizziness, nausea, breathing problems).
 - Skin or eye contact (e.g., rashes, allergies, blindness).
 - Swallowing (e.g., stomach or liver damage) may occur if you don't wash between handling a chemical and eating or smoking.
 - Penetration through an open cut or puncture wound.

3. Use personal protective equipment (PPE) to prevent chemical contact.

The SDS lists the specific PPE that you need:

- Respirator to prevent inhaling the chemical.
- Gloves to prevent hand contact with the chemical.
- Eye protection to prevent splashes from reaching the eyes.
- Protective clothing to prevent body contact with the chemical.
- Select PPE approved for the hazard; every job has different requirements.
- Inspect PPE before use; be sure it's undamaged and fits well.
- Don't wear contaminated PPE into an uncontaminated area.
- Remove PPE without spreading contamination, and don't touch contaminated parts. Dispose of PPE properly.



- 4. Handle chemicals carefully to prevent spills, splashes, and releases.**
 - Report, and don't use, a chemical whose container doesn't have a readable label.
 - Inspect chemical containers regularly for leaks; report any problems.
 - Keep chemical containers closed when you're not using them to help avoid spills and excess vapors.
 - Take only the amount you need out of the container.
 - Use chemicals only in work areas that meet the SDS ventilation requirements.
- 5. Practice sensible hygiene and personal habits.**
 - Keep food, drinks, cigarettes, cosmetics, and street clothing out of areas with chemicals.
 - Don't siphon chemicals by mouth.
 - Wash thoroughly with soap and water after working with chemicals.
- 6. Be prepared to take fast, proper action in an emergency.**
 - Clean up small spills or leaks immediately. Or report them, if you're not trained.
 - Wear the proper PPE during spill cleanup and dispose of waste correctly.
 - Know whom to contact to handle large spills, releases, or fires.
 - Know your evacuation route and take it promptly in an emergency.
 - Get to fresh air immediately if you inhale a chemical; then get medical attention.
 - Flush your skin or eyes with water immediately after chemical contact.
 - Know the locations of the nearest shower and eye wash.
 - Remove contaminated clothing before you rinse your skin.
 - Get medical attention after you've rinsed the contamination off.
 - Get immediate medical attention if you swallow the chemical.
- 7. Take chemical exposure risks seriously.**
 - Pay attention to safety training.
 - Follow all safety rules and job procedures carefully.
 - Ask questions whenever you're not sure about a hazard or protective measure.



DISCUSSION POINTS:

Ask participants what chemical hazards they're aware of in their work areas and what they do to reduce their chances of exposure.



CONCLUSION:

- You can reduce the chance of exposure to hazardous chemicals.
- Always know the identity and hazards of chemicals you use on the job. Follow safety rules and label and SDS instructions to reduce your chance of exposure.



TEST YOUR KNOWLEDGE:

Have your employees take the Reduce Your Chance of Chemical Exposure quiz. By testing their knowledge, you can judge their ability to understand the dangers of such exposure and whether they need to review this important topic again soon.



KNOWLEDGE

- Identify the types and locations of hazardous chemicals in your work areas.
- Read the chemical's label and safety data sheet (SDS) to learn:
 - Proper use and storage requirements
 - What routes of exposure are dangerous (inhaling, swallowing, skin or eye contact, and injection)
 - Emergency procedures.

PROTECTIVE CLOTHING

- Read the SDS to learn what personal protective equipment (PPE) will protect you from exposure.
- Select PPE that's in good condition and fits properly.
- Remove and clean PPE carefully to prevent spread of contamination, or dispose of properly, if required.
- Avoid touching any parts of PPE that are contaminated.

SAFE HANDLING

- Inspect containers regularly and report leaks and missing or unreadable labels.
- Keep containers closed when not in use to avoid spills and excess vapors.
- Remove from the chemical container only the amount you need for a job.
- Use required ventilation to remove chemical vapors.
- Store and use chemicals away from substances and conditions such as heat or sunlight that could cause hazardous reactions.

GOOD HYGIENE

- Keep food, drink, cigarettes, cosmetics, and street clothes out of chemical areas.
- Wash thoroughly after working with chemicals.
- Don't siphon chemicals by mouth.

EMERGENCY RESPONSE

- Clean up spills and leaks immediately, or alert trained responders.
- Take your evacuation route immediately in an emergency.
- Act fast after chemical contact.
- Get to fresh air after inhalation.
- Flush with water after skin or eye contact.
- Get medical attention after swallowing and after other first aid.