

HazCom Employer's Guide

Step 3: Create Hazardous Chemical Inventory

What You NEED To Do

As with any other hazard, the starting point in managing chemical dangers is to identify and assess hazards at your own workplace.

Specifically, you must create a hazardous chemical inventory. You've likely already done this, but if not, we've outlined how to get started below or you can download our [HazCom Audit](#) and [Hazardous Material Inventory Form](#) to get started.

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How to Create a Hazardous Chemical Inventory

The first stage in complying with the [OSHA Hazard Communication Standard](#) is to create a list of all the hazardous chemicals in your workplace.

What To Look For

What you're looking for are "hazardous chemicals," which the HazCom standard defines as any "chemical which is a physical hazard or a health hazard."

"Health hazard" means a chemical for which there's statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees, which includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. [Appendix A](#) of the standard provides further definitions and explanations; and [Appendix B](#) describes the criteria used to determine whether a chemical is considered hazardous for purposes of the standard.

“Physical hazard” means a chemical for which there’s scientifically valid evidence that it’s a:

- Combustible liquid;
- Compressed gas;
- Explosive;
- Flammable;
- An organic peroxide;
- An oxidizer;
- Pyrophoric;
- Unstable (reactive); or
- Water-reactive.

Where To Look

The hazardous chemicals inventory can cover either the entire workplace or different work areas. Start by looking at the physical site. Identify chemicals in containers, including pipes, but also think about chemicals generated in the work operations, OSHA explains in its guidelines. For example, welding fumes, dusts, and exhaust fumes are all sources of chemical exposures.

Also look beyond the physical stuff. Examine your purchasing records to identify the kinds of chemicals you have at your workplace. Read labels provided by suppliers for hazard information.

How To Look

The best way to prepare a comprehensive list, according to OSHA guidelines, is to survey the workplace. The guidelines also recommend that you take the “broadest possible perspective when doing the survey.”

“Sometimes people think of ‘chemicals as being only liquids in containers. The standard covers chemicals in all physical forms – liquids, solids, gases, vapors, fumes, and mists – whether they are ‘contained’ or not.” The hazardous nature of the chemical and the potential for exposure are the factors which determine whether a chemical is covered. If it’s not hazardous, it’s not covered. If there is no potential for exposure (e.g., the chemical is

inextricably bound and cannot be released), the rule does not cover the chemical.”

What To Do Next

Once you compile your list, verify that you have Safety Data Sheets (SDSs) for each of them. Check your files against your inventory. If any are missing, contact your supplier and request one. Make a written record documenting such requests, either by copy of a letter or a note regarding telephone conversations.

If you have SDSs for chemicals that are not on your list, figure out why. Maybe you don't use the chemical anymore. Or maybe you missed it in your survey. Some suppliers do provide SDSs for products that are not hazardous. These do not have to be maintained by you.

[6 Reasons to Create a Hazardous Chemicals Inventory](#)

6 Reasons to Create a Hazardous Chemicals Inventory

1. OSHA Says You Have To

The HazCom standard requires employers to implement a [written hazard communication program](#) at their worksite. Under [Sec. 1910.1200\(e\)\(1\)\(i\)](#), the program must include a list of hazardous chemicals at the site.

2. It's Crucial to Hazard Assessment and Program Development

The list isn't just a piece of paper; it's a hazard assessment. The list is an inventory of *all* hazardous chemicals in the workplace at a given point in time. You can then group these substances into major hazard classes, such as flammable, corrosive, toxic and reactive. By mapping out the key chemical hazards in your workplace, the inventory then becomes the point of departure for creating a written hazard communication program appropriate to deal with these hazards.

3. It Helps You Comply With SDS Requirements

The inventory is a tool that helps you comply with the requirement ([Section 1910.1200\(g\)\(1\)](#)) of ensuring that there's an appropriate, up-to-date SDS for each hazardous chemical in your workplace.

4. It Helps You Comply With Training Requirements

The inventory also helps you comply with HazCom training requirements because it maps out the hazardous chemicals to which your employees are exposed and require safety training and education to deal with..

5. Helps Identify and Correct Supply Problems

Inventories can help you identify potential hazardous chemical supply problems or inefficiencies and that you can proceed to correct. For example, the inventory might reveal an opportunity to store smaller quantities of a hazardous chemical by consolidating storage locations or to streamline your ordering process so that an employee can't inadvertently order a particular product for which ample supplies already exist in different storage sites.

6. Makes It Easier to Consider Less Hazardous Substitutes

Conducting a hazardous chemicals inventory gives you the chance to consider replacing current products with substitutes that are less dangerous to worker health and safety as well as the environment.

Conclusion: Inventory Is a Work in Progress

Keep in mind that conducting an inventory just gives you a snapshot of the hazardous chemicals in your workplace *at a given time*. Changes in operations may lead to the elimination of some hazardous chemicals and the introduction of new ones. So establish a method for ensuring that the inventory is reviewed and updated at least once a year. In addition, develop a method for adding new chemicals the first time they're used in the workplace.

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