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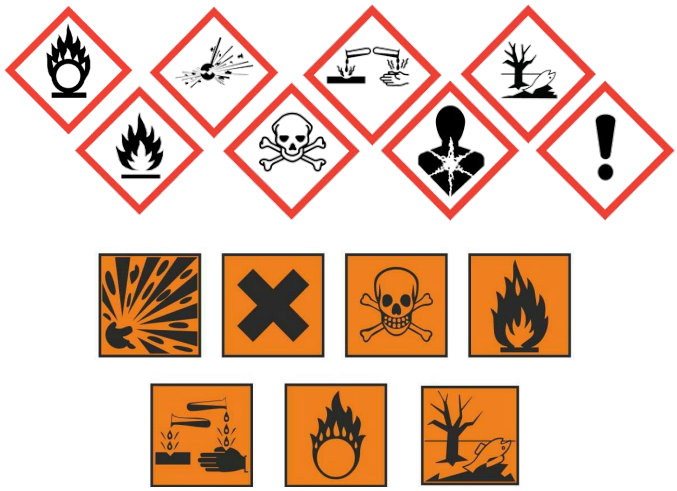
# What Must Be Tracked in the Inventory?

## Hazardous Chemicals

You must track inventory of any research chemicals that are **physical, environmental, or health hazards.** This includes all solvents and other flammables, reactive substances, corrosives, irritants, toxics, etc.

Examples of the new GHS hazard pictograms and the older CHIP hazard pictograms are shown below.

**If a manufacturer has labeled a chemical container with one or more of these symbols, the chemical must be tracked in your inventory.**

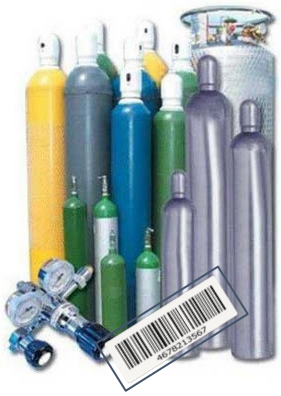


Older chemical containers may not be labeled according to current standards. Some containers that do not have these hazard pictures are still hazardous and must be tracked in your inventory. If you're not sure, contact cheminv@ehrs.upenn.edu to ask!

For information about what these pictograms mean, see the chemical's SDS, or see https://www.osha.gov/sites/default/files/publications/OSHA3491QuickCardPictogram.pdf.

# Tracking Hazardous Gases

**ALL HAZARDOUS GASES must be tracked in your inventory.**
See Reference Chart: Common Gas Cylinder Volumes/Weights (click here for link) for information about cylinder sizes.



**Hazardous Gases** Include any gas that is:

- Flammable
- Corrosive
- Toxic
- Oxidizing
- Or otherwise hazardous per the SDS


Common examples of hazardous gases include:

| | | |
|---|---|---|
| Ammonia | Fluorine | Oxygen (> 20%) |
| Boron trichloride | Hydrogen (> 5%) | Propane |
| Carbon monoxide | Hydrogen fluoride | Silane |
| Chlorine | Methane | Sulfur dioxide |
| Dichlorosilane | Nitric oxide | |

**Inert (non-hazardous) gases do not need to be tracked**.


Examples of inert gases include:

Argon
Carbon dioxide
Nitrogen
Helium

## Exempt Chemicals

Below are some examples of containers that **do not** need to be tracked in the inventory system:

- Chemicals in small quantity (< 10 mL) that are sold as part of **a kit** and stored within the kit.
- **Stock solutions** and other mixtures of chemicals that were prepared in your lab and/or transferred into a new container (such as **wash bottles** of solvents).
- **Household products** such as Clorox, Windex, baking soda, paints, etc.
- Products with **no chemical hazards**, such as:

| | | |
|---|---|---|
| Growth media | Amino acids | Glass beads |
| Agar/Agarose | Sodium chloride | Glucose, sucrose, starch, etc. |


These are just a few examples. If you're not sure whether a material is hazardous, check if the container has a hazard warning on the label. If you are still unsure, inquire at cheminv@ehrs.upenn.edu. **Remember: You are welcome to track non-hazardous materials in your inventory.**