

# Campus Safety Bulletin #6

## HOW DO YOU SPELL HAZARDOUS WASTE?

These guidelines are in two parts:

**Part One** of these guidelines helps to answer the question, “What is a hazardous waste?” (Or, “Is this material really a hazardous waste?”)

**Part Two** of these guidelines briefly *describes how manage* (to containerize and label) hazardous wastes generated by campus operations.

Both the decision making process about what is a hazardous waste and the management of it have requirements in Title 22 of the California Code of Regulations ( 22 CCR). Following the guidelines in this Safety Bulletin will minimize the chance of accident (spill or release) of a hazardous waste and will allow for the management of such waste compliant with existing regulations. Please note that there are also requirements, not addressed in this Safety Bulletin, for the training of employees who handle hazardous material (whether it is waste or not).

The Environmental Safety Office (Risk Management) can assist with determining specific cases (“Is this a hazardous waste?”) and with labeling information and container selection. If you have requests or questions please contact the Environmental Safety Office at extension 6661.

### PART ONE

**What materials are hazardous waste?** The following is a general description of common materials on campus which qualify as hazardous waste upon being discarded. These are materials which have a history of being part of hazardous waste disposal programs at Cal Poly or other educational institutions. Note: **The following list is not exhaustive.** The universe of hazardous waste is larger than described here.

#### These things are Hazardous Waste

1. Discarded paint: spray or brush on, oil base or acrylic latex (water clean-up type)
2. Discarded batteries (all kinds)
3. Discarded fluorescent light tubes (new or used) and HID lamps (“sodium vapor” lamps) (note: container closure and labeling requirements may vary)
4. Discarded fluorescent light ballasts which contain PCB
5. Discarded material or objects containing asbestos or lead compounds (above numerical limits of asbestos or lead content; Lead is usually, but not always, part of lead-containing paint)
6. Discarded chemicals or mixtures containing acid (pH less than 2)
7. Discarded chemicals or mixtures containing alkali (pH greater than 12.5)
8. Discarded chemicals or mixtures containing *compounds* of arsenic (**As**), barium (**Ba**), cadmium (**Cd**), chromium (**Cr**), copper (**Cu**), lead (**Pb**), mercury (**Hg**), molybdenum (**Mo**), nickel (**Ni**), selenium (**Se**), silver (**Ag**), thallium (**Th**), vanadium (**V**), or zinc (**Zn**)
9. Discarded fuel, oil, or automotive coolant (new or used). This includes spilled material which has been cleaned up and the absorbent, now contaminated, which has been used to do the clean up.

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10. Discarded solvent (halogenated or non-halogenated; flammable or combustible)
11. Discarded empty containers of most pesticides (insecticide or herbicide)
12. Used Photographic Fixer (contains compounds of silver)
13. Discarded material which is generally acknowledged to be *toxic*. (This one is actually much more complex than is stated here.)
14. Discarded material which would produce a gas on contact with water
15. Discarded preserved animals (biological specimens) containing formaldehyde or alcohol
16. Discarded industrial cleaners containing quaternary ammonium compounds or hypochlorite (bleach)
17. Many more

*The following things are not hazardous waste:*

(And they may be discarded in the normal trash)

- Incandescent light bulbs (“normal” light bulbs)
- **Empty** containers of hazardous material (other than pesticide) 5 gallon size or smaller
- Elemental solid metals (not “compounds” as in #8 above) when in large “pieces” (*not finely divided or powder*). **Please note:** Arsenic is not a metal, and mercury is not a solid. As such, elemental arsenic or elemental mercury in any form is hazardous.
- Fluorescent light ballasts which do not contain PCB. These ballasts are labeled with the statement “NO PCB’s”. Ballasts not labeled with this phrase are assumed to contain PCB and are managed as hazardous waste as in No. 4 (above).
- Additional materials may qualify for this list.
- Anything *not discarded* (and, of course, not put into the normal trash). Any material which is still usable and is given to another person (department) to *use is not waste* (hence, not hazardous waste) EPA regulations cover only that material which is hazardous and, at the same time, *waste*. A hazardous material will still be hazardous even though it has not yet become waste, and there may be other requirements (apart from EPA regulations) affecting the use and management of such material.

## PART TWO

**What should be done with a hazardous waste?**

- A) Put the waste in a **container which is compatible** with that waste; this means the waste won’t eat through the container and leak. (Note: There are additional requirements for storage in a “tank”.)
- B) This container must be in **good condition**; this means using a container that isn’t already leaking or isn’t about to leak or fall apart when it is moved. Yes, it is OK to put hazardous waste in a new container.
- C) This container must **not contain any residue which will chemically react** with the waste being added to it now.
- D) This container must also have a **cap or lid which prevents leaking** or escape of the waste;
- E) This usually means a liquid-tight screw cap. The closed container (viz. with the screw cap on) must not leak when the hazardous waste is in the container and the container is tilted or inverted.

- F) This container must be **kept closed** (lid on and non-leaking as in D - above) except when adding or removing material.
- G) Put a **LABEL** on the container when you first start adding waste to it. The LABEL must contain the following information:
1. The **start date** (the date the first amount of waste was added to the container, or the date the empty container was first put into position for use.)
  2. The words **“HAZARDOUS WASTE”**
  3. The **name or description of the waste** (Use chemical names or names commonly used to describe such material. Don't say only the word “waste” here or something secret like “batch 17 waste”.)
  4. The specific **kind of hazard**; use the word(s) **“Toxic”, “Flammable”, “Corrosive”** (say “acid” or “alkali”, whichever is the case), or **“Reactive”** (meaning “reacts with water”)
  5. The **physical state** of the waste; Say **“Solid”, “Liquid”, or “Gas”** - whichever applies.
  6. The words: **“Cal Poly, San Luis Obispo, CA 93407”** (This is the name and address of the generator.)

(If the container is already labeled from a previous, but different, use, remove the old label or cover the old label; spray paint works well.)

Hazardous Waste labels may be hand written, typed out or computer generated, or purchased from a label company - or a combination of the these - as long as all the information listed (1 through 6) appears on the label.

- H) Contact the Environmental Safety Office at extension 6661 to arrange removal to the campus hazardous waste accumulation area whenever one or more of these conditions exists:
- The waste container is full, or
  - The procedure that made it is finished, or
  - The end of the quarter is at hand.

EXAMPLES OF HAZARDOUS WASTE LABELS

Please photocopy as needed. Attach to the container(s) with spray adhesive or clear tape. Each container of hazardous waste must be labeled with the six (6) pieces of information indicated on the labels below. Visibly numbering the items, as shown here, is optional. The format and size of the label can vary as long as the six items are included.

<b>KEEP THIS CONTAINER CLOSED.</b>	
1. <b>HAZARDOUS WASTE</b>	2. Start Date _____
3. Contents: (Write chemical or commercial name(s)) _____ _____ _____	
4. Physical State: (circle one) <b>SOLID</b> <b>LIQUID</b>	
5. Hazard: (circle) <b>TOXIC</b> <b>CORROSIVE (ACID OR ALKALI ?)</b> <b>IGNITABLE</b> <b>REACTIVE</b>	
Source Department: _____	
<b>FOR QUESTIONS CONCERNING THIS CONTAINER CONTACT THE ENVIRONMENTALHEALTH &amp; SAFETY OFFICE, (805) 756-6661</b>	
6. <b>California Polytechnic State University, San Luis Obispo, CA 93407</b>	
EPA ID No. CAD 094455102	

Or

<b>KEEP THIS CONTAINER CLOSED</b>
1. <b>HAZARDOUS WASTE</b> , 2. <b>START DATE</b> : _____
3. <b>WASTE NAME/DESCRIPTION</b> : _____ _____ _____
4. (CIRCLE ONE): <b>SOLID / LIQUID</b>
5. (CIRCLE): Toxic Corrosive Ignitable Reactive
6. Cal Poly, San Luis Obispo, CA 93407