

The four major waste categories from university operations (e.g., research labs, medical clinics, and construction) are: chemical; biohazardous; radioactive; and universal. Strict regulations govern waste management and its disposal, and failure to comply may result in steep fines levied from local, state, and federal levels.

Chemical Waste

US EPA defines hazardous waste as: ignitable; corrosive; reactive; and toxic. Commingling of incompatible waste streams may lead to unintended chemical reactions with disastrous outcomes.

- To start the collection process:
- 1 Segregate chemical waste into appropriate waste streams. Do not mix solid waste with liquid waste.
 - 2 Select appropriate containers (see chart on next page. **NOTE: EH&S provides safety cans to recycle halogenated and non-halogenated solvents).**
 - 3 Apply an adhesive hazardous waste label or tag (supplied by EH&S) to each container.
 - 4 Complete a [Chemical Waste Disposal Form](#) for each container.

Biohazardous (Infectious) Waste

Biohazardous waste has potentially infectious pathogens that reside in cultures; fluids; sharps; pathological waste; and contaminated glassware.

- To start the collection process:
- 1 Select appropriate containers (see chart on next page. **NOTE: EH&S provides these containers: sharps, pharmaceutical/chemotherapy, 33-gallon, and red bags).**
 - 2 Keep 33-gallon containers clean at all times. DO NOT remove the inner red bag.
 - 3 DO NOT exceed the “fill line” of sharps and pharmaceutical/chemotherapy containers.

Radioactive Waste

Radioactive waste contains aqueous liquid; dry/solid; scintillation vials; organic liquid; sharps; and animal carcasses, and grouped according to short, mid, and long term half-lives of the radioisotopes. Containers illustrated on the next page may be appropriate for certain radioisotopes. Contact hazmat@usc.edu or (213) 740-7215 for more information.

What I Need to Know...

- Chemical waste must **NOT** be poured down the sink for disposal. **Remember: Dilution is NOT the Solution.**
- Keep waste containers capped/covered when not actively being used.
- Keep all glass waste containers in secondary containment. Do not store on the floor.
- Contact EH&S for proper waste management and disposal or requesting supplies. hazmat@usc.edu or (213) 740-7215.
- Always wear appropriate personal protective equipment when handling hazardous waste.

Remember:

DO NOT fill liquid containers completely. Leave enough head space to allow for expansion.

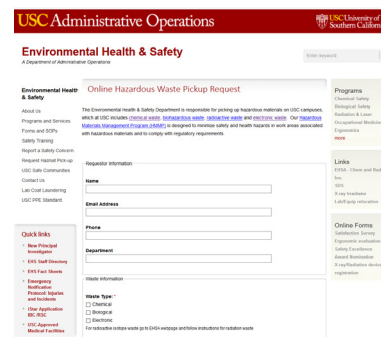
DO NOT use structural formulas or abbreviations on the hazardous waste labels or disposal records.

DO NOT store filled waste containers awaiting pick-up on the lab floor. Store in suitable cabinets.

Universal Waste

Universal waste applies to consumer products and business equipment that are near or at the end of their useful life. This includes: computer equipment; old lab equipment; batteries; aerosol cans; toner cartridges; light bulbs; and old office equipment to name a few.

To request a waste pick-up, complete the [on-line form](#) and submit. In the spirit of sustainability, EH&S strives to recycle waste streams where possible.



The screenshot shows the USC Administrative Operations website. The main heading is "Environmental Health & Safety". Below it, there is a section for "Online Hazardous Waste Pickup Request". The form includes fields for "Name", "Email Address", "Phone", and "Department". There are also "Quick Links" and "Links" sections. The "Quick Links" section includes: "New Pickup Request", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information". The "Links" section includes: "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information", "Request Information".

CONTAINERS FOR HAZARDOUS WASTE DISPOSAL

CHEMICAL

NOTE: A Chemical Waste Disposal Form must accompany all waste containers

Liquid:

- Aqueous solutions containing toxic metals
- Concentrated acidic solutions (place in thick glass or plastic containers)
- Concentrated alkaline solutions (place in plastic containers)
- Mercury
- Silver salts (recycled)
- Used vacuum pump oil

Gross solid:

- Silica and alumina gels

Solid:

- Contaminated PPE
- Kimwipes
- Chemicals no longer needed or wanted may remain in their original containers

Recycle:

- Organic solvents
- Halogenated organic solvents

CLEAN GLASS

- Intact or broken glass NOT contaminated with chemical or biological agents
- Rinse 3 times and deface label before disposal
- Use heavy, puncture-resistant cardboard lined with plastic bag

CONTAMINATED GLASS

- Glass contaminated with chemicals only
- Use HDPE container or heavy, puncture-resistant cardboard lined with plastic bag
- Label box "Contaminated Glass"
- No microscope slides

Request a Hazardous Waste Pick-up on-line:
<http://adminopsnet.usc.edu/node/322>

BIOMEDICAL

Solid Material:

- Contaminated with human/animal fluids/blood or other biohazards e.g. gauze, paper towels, plastic-backed absorbents or bench coat, etc.
- Petri dishes
- Plastic pipettes
- Plastic pipette tips
- Plastic Vacutainer tubes
- Culture vials
- Live or attenuated vaccines in non-glass container
- Gloves and other personal protective equipment worn while working with biohazardous material or animals

Tabletop container:

- All items may be placed in small tabletop container, EXCEPT serological pipets.
- Place smaller waste bags into larger biohazardous waste can
- Do not overfill! NO SHARPS!

Liquids:

- Decontaminate by approved method (e.g., in 10% bleach for 20 minutes); dispose down sink followed by water

PATHOLOGICAL

- Organs, tissues, and body parts removed by trauma, surgery, autopsy, or other medical procedure
- Animal carcasses contaminated with infectious materials
- Place materials in leak-proof bag

SHARPS

- Needles
- Razor blades, scalpels
- Microscope slides
- Glass pipettes
- Dental wires
- Glass Pasteur pipettes
- Blood vials (glass Vacutainer tubes)
- Any contaminated material that can puncture/penetrate the skin or Red Bag

PHARMACEUTICAL

Outdated and/or empty vials, broken ampules, etc.

CHEMOTHERAPY

Outdated and/or empty vials, broken ampules, etc.

