

# Laboratory Waste Collection Program



# Background Information

The principal investigator is responsible for:

- Developing protocols for managing dangerous waste
- Determining what dangerous waste is in their lab
- Training staff
- Providing appropriate PPE for the hazards in their lab

## **Dangerous Waste**

Information regarding the hazard level of a material can be found on the SDS.

## Background Information *(continued)*

The Globally Harmonized System (GHS) for Hazard Communication classifies agents:

- On a scale of 1 to 4 with 1 being the most dangerous
- As “danger” or “warning,” with “danger” being the most severe
- The oral and dermal LD<sub>50</sub> of a material should also be reviewed.
- Materials classified by GHS primarily as 1 or 2 and/or labeled with the word “danger” and having an oral LD<sub>50</sub> of  $\leq 25$  mg/kg and/or a dermal LD<sub>50</sub> of  $\leq 50$  mg/kg should be considered as dangerous.
- In addition to the above, a list of dangerous waste materials can be found at <https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Dangerous-waste-reporting-requirements/Dangerous-Waste-Annual-Report/Waste-codes>.

# Waste Collection

We provide bins and bags in a rainbow of standardized colors and shapes.

This helps researchers dispose of waste properly in any space on campus and helps housekeeping staff know what is appropriate for them to touch and dispose of during their daily routines.

**Note: Liquid chemical waste can be kept in a variety of containers as long as the containers are clearly labelled.**

Color:	Waste Type:
<b>Red</b>	<b>Biohazardous</b>
<b>Orange</b>	<b>Pathological</b>
<b>Yellow</b>	<b>Radioactive</b>
<b>Blue</b>	<b>Broken Glass</b>
White	<b>Autoclavable</b>
<b>Violet</b>	<b>Solid Chemical</b>
<b>Black</b>	<b>Reserved for custodial staff</b>
<b>Gray</b>	
<b>Green</b>	

# Biohazardous Waste

Biohazardous waste is regulated waste. It contains enough blood or other potentially infectious material (OPIM) to potentially spread bloodborne pathogens. This includes:

- Human body fluids such as semen or vaginal secretions, cerebral spinal fluid, peritoneal fluid, or amniotic fluid
- Unfixed human tissue
- Liquid or semiliquid blood
- Contaminated items that would release blood or OPIM if compressed
- Contaminated sharps such as needles or scalpels
- Pathological or microbiological waste containing OPIM

Contact Safety Officer for pickup when containers are three-quarters full



Biohazardous sharps



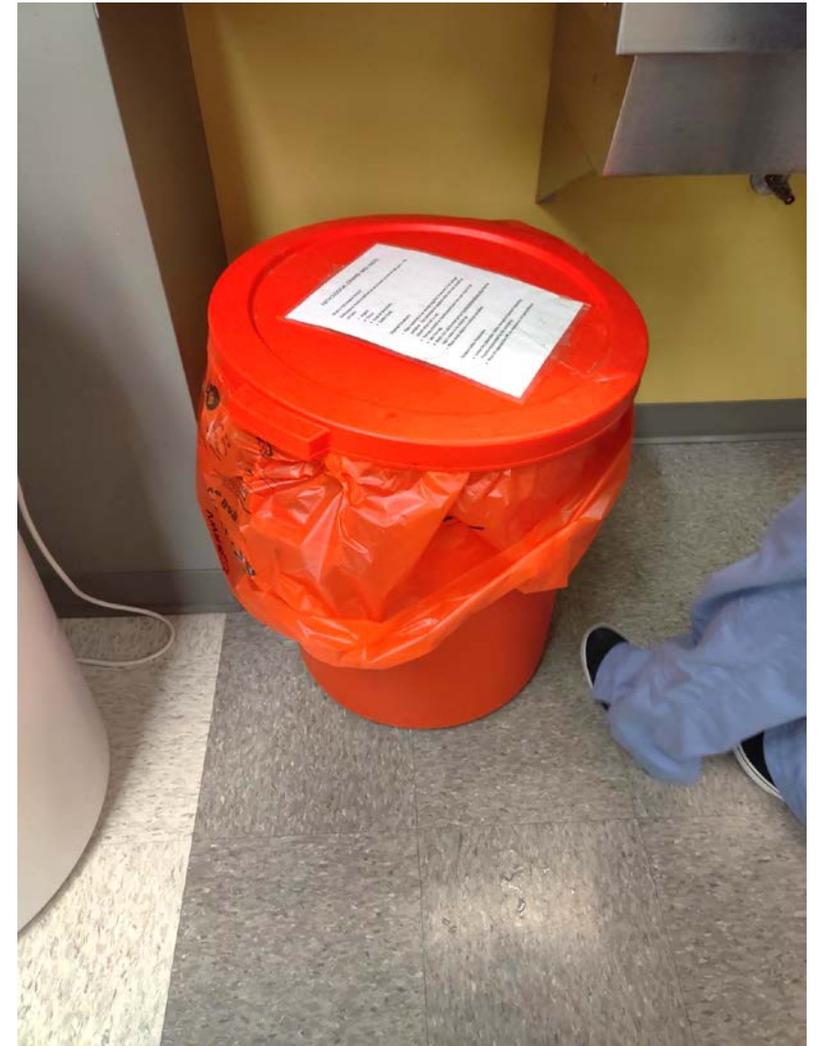
Biohazardous

# Pathological Waste

Pathological waste is defined as any animal or *fixed* human body part including:

- Organs
- Tissue
- Surgical specimens
- Body fluids

Contact Safety Officer for pickup when containers are three-quarters full



# Radioactive Waste

Radioactive waste is handled by the  
WSU Pullman Office of Radiation



# Broken Glass

## Noncontaminated glassware

- Drain glassware and place in the double-lined blue container. Sweep up broken glassware with a dustpan and dispose of in the blue container or sharps container.
- Glassware can be disposed of by placing the secured bag in a cardboard box, taping, and indicating “glassware for disposal.” Place the box with other trash for custodial staff to remove.

## Contaminated glassware

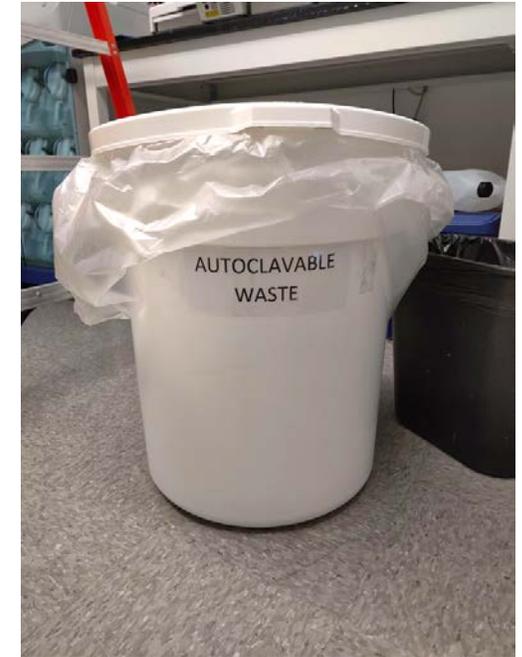
- Contaminated with **infectious materials**: autoclave and dispose of as noncontaminated glassware
- Contaminated with **chemical waste**: place in the lavender solid chemical waste bin, documenting the chemical on the label. Submit a waste collection form when the container is three quarters full.
- Contaminated with **radioactive waste**: dispose of as radioactive waste



# Autoclavable Waste

Autoclavable waste is:

- All disposable lab ware contaminated with potentially biohazardous materials (dried blood/body fluids, human and animal cell culture media, bacteria culture media, viruses, recombinant DNA)
- Gloves (whether contaminated or not) and paper towels used for work surface or equipment decontamination
- Cloth containing blood stains, blood-coated cotton balls
- Culture plates
- Culture media
- Live or attenuated vaccines
- Waste from biological toxins
- Tubing, catheters



## Autoclavable Waste *(continued)*

When containers are three-quarters full:

- Secure with a twist tie for autoclaving (leave 1" room for bag to vent)
- Place bag in autoclave on a metal or plastic autoclave safe tray
- Autoclave at 121 °C for 20 minutes
- After cooling, dispose of as regular trash to be picked up by custodial staff

WSU Spokane provides large bins next to the autoclave for final disposal.

# Solid Chemical Waste

Solid chemical waste is any disposable lab object that comes into contact with chemical hazards, including:

- Gloves
- Weigh boats and weigh paper
- Benchttop absorbent pads
- Pipettes and pipette tips
- Contaminated plasticware

Apply a chemical waste label to the outside of the container.

When the container is three-quarters full, complete the chemical waste collection form to request pickup and seal bag with tape or a closer tie.



# Liquid Chemical Waste

Because liquid waste can possess a variety of chemical properties, it is not in the best interest to provide a single container type. Standardized labels are used for liquid chemical disposal. Containers must be marked with the date when waste collection begins. For solid chemical hazards that require individual collection, the same rules apply.

To facilitate proper disposal of liquids, several types of containers are available. This includes solvent safe plastics and amber glass bottles. By using a variety of sizes, waste doesn't accumulate in fume hoods and is picked up regularly. Researchers are welcome to use any appropriate container they have on hand as well.



**NEW GUIDELINES: For containers over 4L, the letters must be ½" tall.**