Biohazardous, Medical & Biological Waste Guidance Chart

The chart below provides information on how to handle most, if not all, of the items that frequently are collectively referred to as "biohazardous waste". Biohazardous waste is a term that encompasses a number of distinctly different waste streams, including biological waste, infectious waste, and medical waste. To make it easier for laboratories to understand how these wastes must be handled in the laboratories and disposed of as waste the chart below gives clear information on specific items that are likely to be in your biohazardous waste stream. Please adhere to this chart and do not dispose of any material in any manner other than as described in this chart. Improper release of this waste into regular trash, dumpsters and landfills can expose the university and potentially your laboratory and department to substantial financial penalties by regulatory authorities and jeopardize funding from granting agencies..

Syringes and Needles

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining "sharps" waste containers	Comments
Red plastic "sharps" containers ONLY	**NONE**	**Call the Biosafety Office 3-6359**	**Call the Biosafety Office 3-6359**	**All syringes and needles are considered "medical waste". NEVER manually detach a needle from the syringe, discard the entire system.**

Scalpels

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining "sharps" waste containers	Comments
Red plastic "sharps" containers ONLY	**NONE**	**Call the Biosafety Office 3-6359**	**Call the Biosafety Office 3-6359**	**Scalpels are considered "medical waste". Never place these in the "regular" trash.**

Glass slides and cover slips

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining "sharps" waste containers	Comments
Red plastic "sharps" containers ONLY	**NONE**	**Call the Biosafety Office 3-6359**	**Call the Biosafety Office 3-6359**	**Do Not place these items in the "broken glass" container. Never place these in the regular trash.**

Razor Blades

Disposal Container	On-Campus Treatment	Requesting waste removal from your lab	Obtaining "sharps" waste containers	Comments
Red plastic "sharps" containers ONLY	NONE	Call the Biosafety Office 3-6359	Call the Biosafety Office 3-6359	Do not leave razor blades out in the open and uncovered. Never place these in the "regular trash".

Pasteur pipettes

Disposal Container	On-Campus Treatment	Requesting waste removal from your lab	Obtaining "sharps" waste containers	Comments
Red plastic "sharps" container ONLY	NONE	Call the Biosafety Office 3-6359	Call the Biosafety Office 3-6359	Do Not place in regular trash. Do not place in "broken glass" container.

Broken glass contaminated with potentially infectious materials (human blood, body fluids, culture)

Disposal Container	On-Campus Treatment	Requesting waste removal from your lab	Obtaining "sharps" waste containers	Comments
Red plastic "sharps" containers ONLY	NONE	Call the Biosafety Office 3-6359	Call the Biosafety Office 3-6359	Use extreme care when picking up contaminated broken glass. Use tongs or forceps. Never use your fingers!

Broken and unbroken glass with no contamination

Disposal Container	On-Campus Treatment	Removing this waste from your lab	Obtaining "broken glass" containers	Comments
"Broken Glass" box supplied by vendor. OR Use a recycled cardboard box with sides and top labeled "Broken "Glass".	All glass must be clean and uncontaminated by any biologicals, body fluids, radioactives, or visible chemicals. No liquids can be present in any pipettes or vials, etc.!!!!	When box is full, securely tape the box closed; make sure it is labeled *broken glass* and take out-side to dumpsters.	"Broken Glass" containers may be purchased from approved vendors or you may use any durable cardboard box and prominently label sides and top "Broken Glass".	Use "common sense": Never fill the box so that glass objects protrude from the open end. If you use a large box it will be very heavy once filled with glass, keep the box size modest. Ensure that the box used is in good shape and can handle the weight of the glass. Use durable tape when sealing the box.

Broken or unbroken glass contaminated by Uranyl Acetate, Uranyl Nitrate, Thorium Nitrate, and similar low-activity heavy metal radioactives used in electron microscopy.

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Red plastic "sharps" container with the label "radioactive material" and the internationally recognized symbol for radiation on the label. Both sides of the container must be labeled.	**NONE** **Do not mix this waste with any other material.** **Never drain dispose any radioactive material regardless of quantity or activity.**	**Call the Radiation Safety Office 3-3546** **The container must have information affixed identifying the radioactive species and best estimate of activity.**	**Call the Radiation Safety Office, 3-3546**	**Heavy metal low-level radioactive material is used often in electron microscopy staining. This material does not have to be labeled radioactive until it becomes waste. Once it becomes waste it must be treated as "*radioactive waste*".** **This waste material must remain separate from all other wastes!**

Non-Pasteur plastic pipettes and tips contaminated with potentially infectious materials (human blood, body fluids, culture)

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Red plastic "Biohazard" Bag	**AUTOCLAVE; *Use pre-set cycle for waste disposal on autoclave***	**After autoclaving, place the sterilized bag inside dark trash bag. Take trash bag to building dumpster.**	**The Biosafety Office *may* furnish "bio-hazard" bags. Purchased bags *must* have ASTM certifi-cations D1922 and D1709 printed on the outside.**	**Individuals responsible for autoclaving waste must have completed autoclave training.** **All autoclaved waste must have either autoclave tape or some other indicator affixed to the bag.** **Waste sterilization must be entered into the autoclave log**

Plastic ware or other items contaminated with potentially infectious material (blood, body fluids, cultures)

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Red, plastic autoclavable "Biohazard" bag	**AUTOCLAVE** ***Use pre-set cycle for waste disposal on autoclave***	**After autoclaving, place the sterilized bag inside of dark trash bag. Take trash bag to building dumpster.**	**The Biosafety Office may furnish biohazard bags. Purchased bags must have ASTM certifications D1922 and D1709 printed on the outside.**	**Individuals responsible for autoclaving waste must have completed autoclave training** **All autoclaved waste must have either autoclave tape or some other indicator affixed to the bag.** **Waste sterilization must be entered into the autoclave log.**

Glass test tubes contaminated with potentially infectious materials (blood, body fluids, culture)

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Red, plastic autoclavable "biohazard" bag	**AUTOCLAVE** **Use pre-set cycle for waste disposal on autoclave**	**After autoclaving, place the sterilized bag inside of dark trash bag. Take trash bag to building dumpster.**	**The Biosafety Office may furnish biohazard bags. Purchased bags must have ASTM certifications D1922 and D1709 printed on the outside.**	**Individuals responsible for autoclaving waste *must* have completed autoclave training.** **All autoclaved waste must have either autoclave tape or some other indicator affixed to the bag.** **Waste sterilization must be entered into the autoclave log.**

Capillary Tubes

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining waste containers	Comments
Red Sharps container	**NONE**	**Call Biosafety 3-6359**	**Call Biosafety 3-6359**	**Capillary tubes break easily and pierce all bags used for collection of waste. Never place these in the ordinary trash**

Contaminated and Uncontaminated Serological Pipettes (Plastic, long pipettes)

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate containers	Comments
Contaminated: Reusable, autoclavable pipette sterilization trays. *Uncontaminated:* Regular **cardboard box**	*Contaminated:* Use pre-set cycle for waste disposal on autoclave *Uncontaminated:* None, dispose in dumpster.	*Contaminated:* after autoclaving, place in trash bag and dispose in dumpster *Uncontaminated:* when cardboard box is full, dispose in dumpster.	*Contaminated:* Pipette sterilization trays are available free of charge from the Biosafety Office *Uncontaminated*: Use cardboard shipping boxes, recycle!	Custodians do not like to see these items in regular trash. The pipettes puncture regular trash bags. Red autoclave bags shrink when autoclaved, serological pipettes will puncture those bags if they are autoclaved. Use pipette trays!

All Culture Plates

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining appropriate waste containers	Comments
Red, plastic autoclave bag	**AUTOCLAVE** **Use pre-set cycle for waste disposal on autoclave**	**After autoclaving, place the sterilized bag inside dark trash bag. Take trash bag to building dumpster.**	**The Biosafety office *may* furnish biohazard bags. Purchased bags must have ASTM certifications D1922 and D1709 printed on the outside.**	**Individuals responsible for autoclaving waste *must* have completed autoclave training.** **All autoclaved waste must have either autoclave tape or some other indicator affixed to the bag.** **Waste sterilization must be entered into the autoclave log.**

Tissue Culture Media

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining appropriate waste containers	Comments
Place in liquid container, Preferably non-breakable	**Disinfect with bleach (1 part bleach to 10 parts water) or other appropriate disinfectant, then empty into drain system** **-Or-** **AUTOCLAVE** **Use pre-set cycle for waste disposal on autoclave**	**N/A**	**N/A**	**Always wear appropriate eye protection, gloves, lab coat and other appropriate clothing when handling bleach and disinfectants in the laboratory.** **Ensure that bleach is "fresh"; bleach weakens in strength in a relatively short period of time.** **Refer to the Biosafety "Decontamination Guide" for alternatives to bleach.**

Animal Bedding from Infected Animals

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining appropriate waste containers	Comments
Do not place bedding in bags and attempt to autoclave. **If cages are small and metal, the entire cage may be placed inside of the autoclave.**	**AUTOCLAVE** **Use pre-set cycle for waste disposal on autoclave** **NOTE: Animal bedding may take considerably longer to sterilize than the red bags of waste.**	**After autoclaving, the bedding may be placed in a durable, dark colored ordinary trash bag and disposed of in the buildings dumpster.**	**Consider using the metal animal bedding trays normally used in the Animal Care Facility.**	**Contact the Director of Animal Care immediately if you suspect an infection or illness in your animal population.** **Wear appropriate protective apparel and eye protection when handling any potentially infected material.** **Animals and bedding from animals that may, or are suspected of, being infected should be treated as if they *are* infected.**

Animal Bedding from Non-Infected Animals

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining appropriate waste containers	Comments
Ordinary dark trash bags, securely sealed.	NONE	Ensure waste is bagged and securely closed. Transport to building dumpster for disposal	Ordinary trash bags may be ordered from any approved vendor.	Do not over-fill bags to the point that bags may rupture. The generator of the waste is responsible for disposal, do not leave this waste out for custodial staff.

Animal Carcasses

Disposal Container	On-Campus Treatment	To remove waste from the lab	Obtaining appropriate waste containers	Comments
Double-bagged in plastic bags. In most cases zip-lock type bags are sufficient. Do not place animals inside red biohazard bags unless the animals are infectious, diseased, or have been inoculated with a pathogen contagious to humans or other animal populations. Animals may be consolidated in five-gallon plastic buckets with screw-top lids closures.	NONE	Double-bagged animals shall be stored in laboratory freezers. Do not store in refrigerators or in open room! Areas that produce this waste stream in large quantities or at high velocity should secure appropriate freezer storage space for their research needs. Call the Biosafety Office to schedule waste pick-ups at 3-6359	The Biosafety Office does not furnish plastic bags for this waste category. Five-gallon plastic buckets with screw-top lid closure will be furnished free of charge by the Biosafety Office. Call 3-6359 to request these containers.	"Animals" shall mean mammals, birds, reptiles, amphibians, etc. Crustaceans, "shellfish", small fish, insects, etc., shall not be included in this category. These items may be placed in dark ordinary trash bags and disposed of in the building's dumpster. Animals that have been kept in preservatives must have all preservatives drained from the container by laboratory staff. The preservative must be identified. Preservatives shall be treated as chemical wastes and may be removed from the lab by calling 3-6359. Animals in containers with visible volumes of liquid preservatives will not be picked up.

Human organs, human tissues, or body parts

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Waste items must be double-bagged in plastic leak proof bags. In most cases zip-lock type bags work well. **These will be placed inside five-gallon plastic buckets with screw-top lid closures at the time of pick-up by EH&S staff**	**NONE**	**Call the Biosafety Office to schedule a pick up of this waste item.** **Biosafety Office 3-6359**	**The Biosafety Office does not furnish plastic bags for this waste category.** **Plastic, five-gallon buckets may be obtained free of charge by contacting the Biosafety Office at: 3-6359**	**There are strict laws and stiff penalties for the mishandling and/or improper disposal of human remains.** **Please contact the Biosafety Office prior to initiating work to ensure that your work proceeds in accordance with all laws and regulations.**

Plastic Ware, Gloves, and other items that are *not contaminated* with Infectious Materials

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Regular trash container	**No treatment required**	**Ordinary trash for routine custodial pick-up**	**Ordinary trash receptacle, obtained by lab.**	**Be mindful of heavy objects and long plastic pipettes that may puncture or tear the trash bag.** **Be considerate to the custodial staff**

Non-Pasteur Glass Pipettes Not Contaminated with Infectious Material

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Cardboard glass disposal box, pre labeled by vendor **OR** **Ordinary cardboard box With each side prominently marked "Broken Glass".**	**All glass items MUST be empty, no liquid volumes allowed.**	**Seal the box closed with durable tape, duct tape works well.** **Ensure box is marked "Broken Glass"** **Place with regular trash.**	**Obtain pre-labeled boxes from University approved vendors** **OR** **Recycle cardboard boxes from your building.**	**Be mindful that these boxes are very heavy when full.** **No glass objects may protrude beyond the box.**

Urine Specimens

Disposal Container	On-Campus Treatment	To remove the waste from your lab	Obtaining appropriate waste containers	Comments
Place EMPTY collection cups into red, plastic autoclavable "Biohazard" bag	**Specimens should be flushed into the sanitary sewer.** **Treat empty collection cups as detailed in the first column.** **THEN:** **AUTOCLAVE** ***Use pre-set cycle for waste disposal on autoclave**	**After autoclaving, place the sterilized bag inside dark trash bag. Take trash bag to building dumpster.**	**The Biosafety office *may* furnish biohazard bags. Purchased bags must have ASTM certifications D1922 and D1709 printed on the outside.**	**Always wear appropriate personal protective gear when handling any human body fluids. At a minimum this includes eye protection, gloves, lab coat and closed toed shoes.**

Transgenic Plant, Insect and Animal Material

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining appropriate waste containers	Comments
Red, autoclavable "biohazard" bag	**AUTOCLAVE** **Use pre-set cycle for waste disposal on autoclave**	**After autoclaving, place the sterilized bag inside a dark trash bag, close securely and dispose of in the building's dumpster.**	**The Biosafety office *may* furnish biohazard bags. Purchased bags must have ASTM certifications D1922 and D1709 printed on the outside.**	**All transgenic material must be "sterilized" before disposal.**

Human or Animal Blood in volume (test tubes, vials, sealed donor "pouches", etc. containing volumes of blood and not just blood contamination)

Disposal Container	On-Campus Treatment	To remove waste from your lab	Obtaining appropriate waste containers	Comments
Vials, tubes, jars containing blood volumes may remain in their containers and they must remain covered/closed and upright so as to not allow spills. **Sealed donor pouches/bags of blood or plasma will be picked up by the Biosafety Office. Do not attempt to treat, sterilize, or drain excess liquids from these bags.**	**AUTOCLAVE** ***Use pre-set cycle for waste disposal on autoclave** ***Racks of tubes should be placed upright on a tray. Uncap or remove container lids. Autoclave w/ autoclave tape affixed to item.** **Or** ***Disinfect/sterilize items by immersion in bleach (1 part bleach to 10 parts water), leave for 30 minutes.** ***Refer to the "Guidelines for Decontamination of Biohazardous Material" for alternatives to bleach** ***Do not autoclave sealed donor pouches!**	**After sterilization, remaining liquid volumes can be released into drains in the laboratory.** **Once sterilized tubes and other containers may be washed and reused, or disposed of in ordinary dark trash bags or inside of securely sealed cardboard boxes and placed in the building dumpster by lab staff.** **Custodians do not handle research waste streams.**	**Ordinary dark trash bags may be obtained from any approved vendor.** **Autoclave trays for holding racked tubes may be obtained from approved vendors.** **Five-gallon buckets may be used to contain bleach solutions in which tubes are immersed. These may be obtained from the Biosafety Office at: 3-6359**	**Always use "*Universal Precautions*" when handling human blood or human body fluids. Assume all blood is contaminated and handle appropriately.** **All workers/labs using human blood, or human body fluids, must attend the University's "Bloodborne Pathogen Training" Program.** **Use appropriate protection when handling bleach and all decontamination agents, including eye protection, gloves, lab coat, and closed toed shoes.**

For "Biohazardous" waste items not identified in any of the charts in this reference, please contact the Biosafety Office for guidance at: 3-6359.