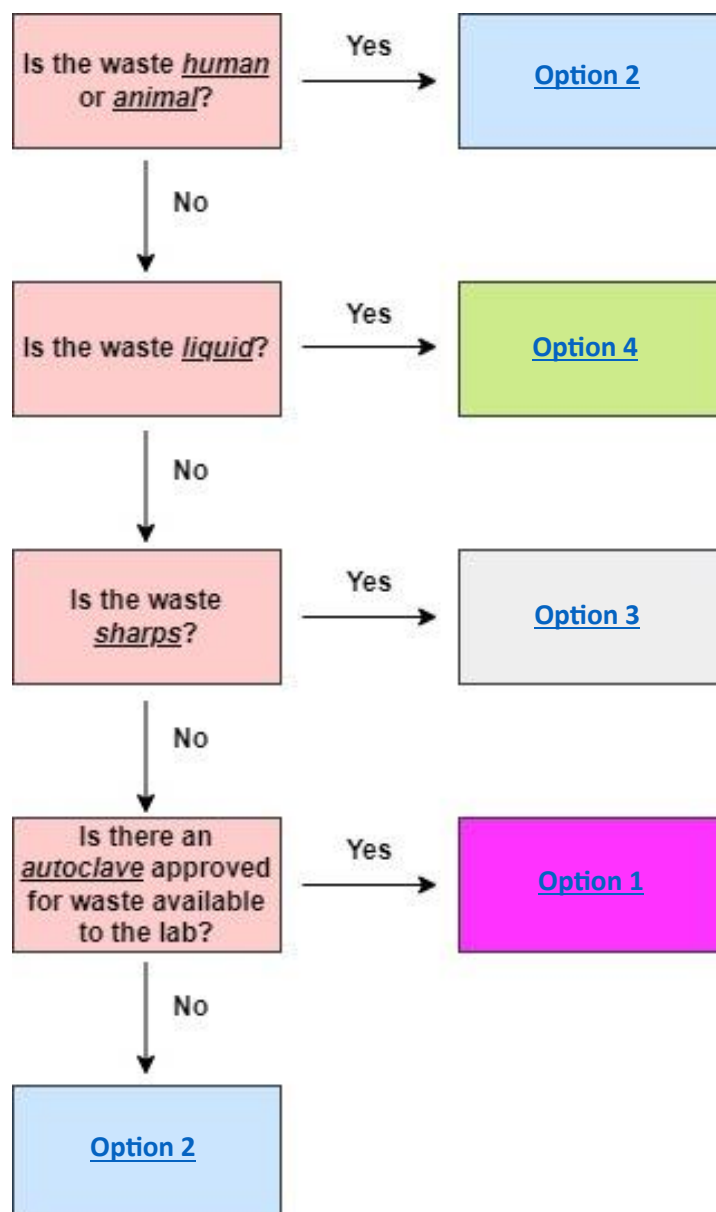


Biological Waste Disposal Options

This document is designed to help you decide the appropriate method of biological waste management for your laboratory. Biological waste may consist of animal tissues, bacteria, viruses, agar plates, animal carcasses, plants, soil, contaminated lab materials (pipet tips, pipets, 96 well plates, etc.), cell cultures, human body materials, as well as other biological waste sources.

A few key questions and answers should help you to determine the correct procedures for your lab. You may be using more than one method. The flow chart below can help you determine which method(s) to follow.

Please reach out to askehs@umass.edu or call 413-545-2682 if you have any further questions.



OPTION 1:

Does your lab have access to an autoclave in your building that is approved for waste processing? If your answer is YES to Option 1, please use this method to manage your waste.

Autoclaves approved for waste processing will have a sign as shown below. Clear autoclave bags (available in the Fisher Stockroom in LGRT) are to be used. No red or orange bags and no biohazard signs are allowed. Do not use other bags as they will melt in the autoclave.



The autoclaved bags have an autoclave sticker placed on them and then they are then placed within a larger opaque bag. The opaque bag is then disposed of in a dumpster. Autoclave records and spore testing is recorded in the Biological Waste Keeping Log.

<p>NON-INFECTIOUS AUTOCLAVED BIOLOGICAL WASTE FROM UMASS AMHERST TREATED IN ACCORDANCE WITH MA-DEP AND MA-DPH REGULATIONS</p> <p>DATE TREATED: _____</p> <p>BUILDING: _____</p> <p>PRINCIPAL INVESTIGATOR: _____</p>	<p>UMass Amherst Biological Waste Record-Keeping Log</p> <p>Building: _____ Room: _____</p> <p>Date First Entry: _____ Date Last Entry: _____</p> <p>Contact EH&S at 413-545-2682 with any questions and to request a replacement log book</p> <p>DO NOT remove any pages from this log book</p> <p>All log sheets will be archived for 3 years at EH&S</p> <p><small>SPORE TEST SHEETS DAILY LOG SHEETS</small></p>
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OPTION 2

Do you generate infectious animal waste? Animal carcasses Human pathological waste? Human blood or blood products? No autoclave in your building?

The biological materials listed above are packaged as shown below. These materials are then shipped off campus and are destroyed in one of two methods.

1. Autoclaving of waste from a building without an autoclave or when an autoclave is out of service.

OR

2. Incineration is utilized for carcasses, regulated medical waste, BSL-3 waste, and additional materials determined by a risk assessment.



OPTION 3

Do you generate needles and syringes (sharps)?

Sharps are regulated medical waste and are shipped off campus for incineration.

Be sure that the container is sealed and closed. Use this link to have sharps picked up:

<https://cems.unh.edu/umass/CEMS/WasteRecord>

To obtain new sharps containers use this link:

<https://cems.unh.edu/umass/CEMS/FormSubmissionRecord?form=7>



OPTION 4

LIQUID WASTE Management

Chemical disinfectants used in the laboratory include those recommended by equipment manufacturers and a broad-spectrum product, typically an intermediate-level disinfectant (i.e., a product with a mycobacteriology claim). An EPA-approved disinfectant must be used, with demonstrated efficacy for the bacteria/virus in use, according to the manufacturer's label. Safe use of chemicals within the laboratory falls under the OSHA Laboratory Standard.

In general, most laboratories use a disinfectant that has a broad range of activity; thus, most labs should select a product with a tuberculocidal/mycobactericidal claim for routine purposes. Many of these products will also have claims that meet the OSHA Bloodborne Pathogens Standard.

Suggested practice:

- Review the constituents of the waste to ensure that they are chemically compatible with bleach and that they may be disposed via the sink.
- Use concentrated bleach that is less than one year old.
- Concentrated *germicidal* bleach should be at least 6.0% sodium hypochlorite and may be at 8.25% (preferred).
- Mix fresh on the day of use in a vessel that is compatible with bleach.
- 6.0% sodium hypochlorite requires a 1:10 ratio of bleach to liquid to be disinfected.
 - Example: 87.5 ml of bleach to 912.5 ml of the liquid to be disinfected.
- 8.5% sodium hypochlorite requires a 1:15 ratio of bleach to liquid to be disinfected.
 - Example: 61.76 ml of bleach to 938.2 ml of the liquid to be disinfected.
- Gently mix the solution and allow it to stand at room temperature for at least 30 minutes.
- Gently pour the disinfected solution down the drain while flushing copiously with running water. Allow the water to run for 15 minutes before turning it off.

Example:

