

Disposing of Regulated Infectious Medical Waste at Tufts

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Are you a generator of medical and biological waste?

Yes, if your work results in the need to dispose of

1. Human blood and blood products
2. Pathological specimens
3. Cultures and stocks of infectious agents
4. Animals and animal waste infected with agents that cause disease in animals and humans.
5. Sharps are any objects that can cause punctures or cuts such as needles, syringes, Pasteur pipettes, broken glassware, scalpel blades, razor blades, knives, dental wires
6. Biotechnology by-product effluents are discarded cultures or solutions made from genetically altered microbes and their products

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Liquid infectious wastes are typically treated with chemical sterilants and either disposed of into the sewer or treated as chemical waste. Liquid may be autoclaved under certain conditions.

The other types of infectious wastes may be either treated in an autoclave or collected in containers for shipment for off-site incineration.

The Autoclave Problem! An autoclave is machine that uses high pressure steam to inactivate microbial agents. Autoclaves operate at 121C(250F) and 15 psi. The selection, packing and loading of autoclave bags are critical steps. Autoclave bags should be loosely filled to about ¾ capacity with weight limited to 20 lbs or less. Autoclave bags must be small enough such that when loaded into the pan, the bags do not contact the sides of the autoclave. The opening of the autoclave bag must be gathered together but leave about a 1" diameter opening to allow penetration of steam into the bag. Polypropylene bags are steam resistant hence if the bags are twisted tightly closed, then the autoclave is just heating the contents to 250F. The heat sensitive autoclave tag wire should be stuck through the bag not tightly wrapped around the opening.



Autoclave bags in pans—not contacting the walls of the autoclave.

Filled autoclave bags must be stored in pans on the floor of the laboratory while waiting for transport to the autoclave for treatment. If spillage occurs, it's in a container and not onto the floor.

Each bag tag number should be placed on the autoclave log page. Autoclave log books are provided by Tufts EHS.

Each waste treatment cycle on each autoclave must be tested every 3 months to verify effectiveness. The results of these tests are logged. Spore strip testing for waste treatment autoclaves is provided by Tufts EHS. The spore strips are attached to a wooden dowel and pushed through the opening into the middle of a bag of waste.

After autoclaving is complete the bag opening should be sealed with tape, wire or rubber band before placed into the trash for disposal as solid waste.