

Medical Pathological Waste (MPW)

Examples of MPW

MPW Contaminated with Radioactive Materials or Hazardous Chemicals

Decontaminate

Disinfectants

Steam Sterilization/ Autoclave

Waste must not be contaminated with radioisotopes or hazardous chemicals

- Waste containing or contaminated with infectious or pathogenic agent(s)
- Pathological waste includes: animal carcasses, anatomical waste (organs, tissue from humans or animals)
- Sharps containers (scalpels, razor blades, Pasteur pipettes, micro-fine pipette tips, all needles and syringes). (See “Sharps” section.)
- Animal bedding contaminated with pathogenic agents which cannot be decontaminated through autoclaving
- Any material potentially contaminated with cytotoxic drug(s): empty cytotoxic drug vials, cytotoxic drug dispensing apparatus, patient care materials, towels, absorbent material, or similar materials

General Information

- For disposal of MPW which contains or is contaminated with radioactive material or hazardous chemicals, refer to the [Multihazardous Waste Section](#)

MPW Minimization - Converting MPW to General Waste:

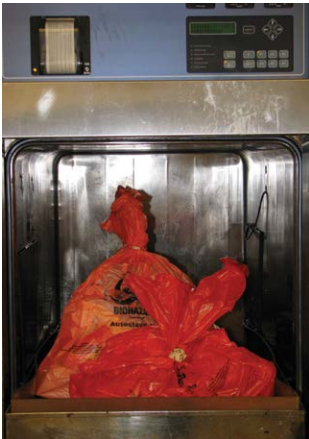
- Examples of MPW which may be converted to general waste through decontamination/inactivation:
 - Liquid clinical specimens (urine, blood)
 - Patient care materials: towels, absorbent material, or similar materials
 - Cultures and media
- For assistance with decontamination procedures, call your Health and Safety Specialist, (301) 496-2346

- Suitable chemical disinfectants include:
 - Sodium hypochlorite (bleach at 5.25%), **(Mercury Free)**, 1:10 dilution
 - Wescodyne (NSN-6840-00-526-1129), use according to manufacturer’s directions

Always use a disinfectant appropriate to the infectious material you wish to inactivate

- Use autoclavable Biohazard bags imprinted with **process indicator**:
(small: NSN-6530-01-282-6378; medium: NSN-6530-01-142-2255; large: NSN-6530-01-218-4644)
- Place in an autoclaveable pan for transporting and autoclaving.
- Add 50 ml water to the autoclave bag BEFORE closing, secure with autoclave tape, but not air-tight
- Waste must be processed for 60 minutes at **minimum** 121° Centigrade
- Cool, discard bag and contents: use the Disposable Labware & Broken Glass box;
Don’t discard autoclave biohazard bags in the general waste dumpster (place in MPW boxes)
- Chemical indicator should be included in every run to ensure adequate sterilization

Note: Autoclaves must be maintained to manufacture specification and validated monthly



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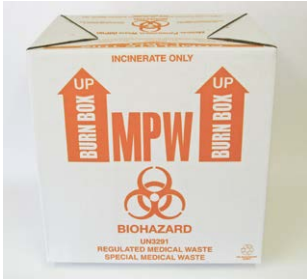
Medical Pathological Waste (MPW)

Use MPW Box Kit
ONLY for MPW

Packing Procedure

The MPW Box (“Burn Box”)

- The MPW box kit (five boxes, ten bags, and plastic bag closures ties) is available from the NIH Self-Service Store and NIH Stock Catalog (NSN-8115-00-L04-0680). **Use 2 bags per box for double containment**
- The MPW box **MUST NOT** be used for disposal of general waste such as soda cans, papers, cardboard, bottles, etc., or for storage or moving laboratory equipment, office equipment, or household items
- The MPW box **MUST NOT** contain free liquids
- Only use the two black plastic bags that comes with MPW box



Pathological waste (tissues and carcasses) MUST be packaged separately from other MPW to avoid odors and sanitation problems

1. Fold the flaps down on the outside of the box.
2. Place TWO plastic bags (one inside the other) into the box and pull the bag tops down over the flaps
3. A filled MPW box should weigh NO MORE than 40 pounds or be no more than 3/4 full
4. Close each bag SEPARATELY. Twist plastic bag at the top; bend the twisted portion to form a loop and seal using the plastic bag closure tie
5. Close the box. Fold Flap A down into box, fold the B Flaps over Flap A, push Flap C down to lock with Flap A
6. PRINT your building, room number, and waste type (pathological or non-pathological) on box top label area



“Sharps” (needles, syringes, scalpel/ razor blades, microfine pipette tips, etc.)

Labware

Cell Culture Media, Blood and Body Fluids or Solid Media

Waste Management Procedures

- Do not recap, bend, remove, or clip needles
- Place intact needles and syringes in the sharps container: (small: NSN-6530-01-294-2865; medium: NSN-6530-01-274-5099). **Do not use large sharps containers that may not fit in a MPW Box**
- Fill 3/4 full, snap lid closed, and discard container in an MPW box
- Do not attempt to compact contents of containers



- Chemical decontamination
 - Submerge the labware for 30 minutes in an appropriate disinfectant solution
 - Collect disinfectant solution as chemical waste. **It is prohibited to discard the disinfectant solution down the sink drain**
 - Discard labware in Disposable Labware & Broken Glass box
 - If glassware/labware cannot be chemically decontaminated, it must be autoclaved to decontaminate

- All materials contaminated with agents used at BSL-3 or BSL-2/3 practices must be packed as MPW after decontamination
- Decontaminate chemically or by autoclaving.
- For chemical decontamination use an appropriate chemical decontaminant following manufacturer’s directions
 - Let stand for 30 minutes.
 - Decontaminated fluid must be collected as chemical waste and called for pick up by Chemical Waste Services
 - Dispose of empty decontaminated cell culture vessel in Disposable Labware & Broken Glass box

Building 10

Building 10C, ACRF,
Animal Facilities in
Building 10

Other NIH Buildings
on Campus, including
Animal Facilities

NIH Buildings off
Campus

MPW Collection Services

<ul style="list-style-type: none">• Packaged and labeled MPW from laboratories and patient care areas are to be placed in corridors for collection by the medical waste contractor	7:30 a.m. – 4:00 p.m. Seven days a week
<ul style="list-style-type: none">• Packaged and labeled MPW will be picked up from the 10C elevator lobby	7:30 a.m. – 4:00 p.m. Seven days a week
<ul style="list-style-type: none">• Take packaged and labeled MPW, as specified in packaging procedures above, to building loading dock or designated cold room	7:30 a.m. – 2:30 p.m. Seven days a week Monday through Friday (except holidays)
<ul style="list-style-type: none">• Take packaged and labeled MPW, as specified in packaging procedures above, to building loading dock or designated cold room	Collected on scheduled days

NOTE: After 2:30 p.m., Monday through Friday, weekends or holidays, MPW boxes should be stored in an appropriate refrigerator or freezer until disposal is available.