










Waste Category	Radioactive Waste	Hazardous Chemical Waste	Biological Waste	Mixed Waste		
	 <p>Phone: 617-496-3797 <a href="http://www.uos.harvard.edu/ehs/radiation/waste.shtml">http://www.uos.harvard.edu/ehs/radiation/waste.shtml</a></p>	 <p><a href="http://www.uos.harvard.edu/ehs/environmental/hazardous_waste.shtml">http://www.uos.harvard.edu/ehs/environmental/hazardous_waste.shtml</a></p>	 <p><a href="http://www.uos.harvard.edu/ehs/biosafety/">http://www.uos.harvard.edu/ehs/biosafety/</a></p>	<p>Mixed waste often requires special procedures. Please contact EHS for proper disposal procedures.</p>		
	Liquid			Bio/Chem	Bio/Rad	Chem/Rad
Liquid	<p>Segregate waste by radionuclide e.g., <sup>32</sup>P, <sup>125</sup>I, <sup>14</sup>C, <sup>35</sup>S, <sup>3</sup>H</p> <p>Collect segregated, tightly-capped scintillation vials in double-bagged 4-mil plastic bags. Pack no more than 200 vials or 400 mini vials per container. Collect vials with <sup>3</sup>H and <sup>14</sup>C in one bag: segregate <sup>3</sup>H and <sup>14</sup>C vials with activity less than 0.05 µCi per ml and those with more than 0.05 µCi per ml. Use tape or the completed radiation waste tag to close the bag. Specify the brand name of the scintillation fluid on the tag.</p> <p>Pack aqueous, non-hazardous, segregated liquid waste (other than scintillation fluid) in EHS-provided liquid containers. Follow instructions on the bottle label. Do not mix organic and inorganic liquids. Ensure the container does not have free-standing liquid. Place the container into a clear plastic bag. Use tape or the completed radiation tag to close the bag.</p> <p>Secondary aqueous liquid waste within <u>sink disposal limits</u> may be disposed into a designated and posted lab sink. Log all sink disposals on the posted radioactive sink log sheet.</p>	<p>Collect chemical waste in containers at a Satellite Accumulation Area (SAA) labeled with a green SAA sign (8"x11"). Attach a completed hazardous waste tag to each waste container.</p> <p>Each waste container must be in a secondary container (e.g. gray bins provided by EHS). Place incompatible chemical waste containers in separate bins.</p> <p>When a waste container is full or ready for pickup, date the tag and request a pickup. Dated waste must be picked-up within 3 business days of date on tag.</p> 	<p>Treat all liquid waste containing biohazardous or viable material with an appropriate liquid disinfectant before sink disposal. The final concentration of disinfectant in liquid waste varies by disinfectant; e.g., 10% bleach, 1% Wescodyne, 1:125 Vesphene, Contact time is 20 minutes in general. <i>Read the disinfectant label for proper use, dilution, and contact time (may vary depending on infectious agent.)</i> Flush the drain with water after disposal.</p>  <p>An autoclave may be used in place of liquid disinfectants if spore testing is periodically performed to validate the autoclave (per Mass. DPH regulations). As a rule, do not autoclave liquid disinfectants or other chemicals.</p>	<p>Mixed biological/chemical waste can be disinfected by using carefully selected chemical treatments <b>ONLY IF COMPATIBLE</b> with the other chemicals in the experiment. Handle resulting waste as hazardous chemical liquid waste.</p> <p>For biological waste questions, please call 5-2345. For chemical waste questions please call 6-3322.</p>	<p>Disinfect iodinated liquid waste with a phenolic disinfectant; e.g., LysoI™. Disinfect all other liquid waste with bleach (10% final concentration.)</p> <p>If the waste is within <u>radiological sink disposal limits</u>, dispose of in designated and posted sink.</p> <p>If levels are above <u>radiological sink disposal limits</u>, then package in EHS-provided containers.</p> 	<p>Please contact the Radiation Protection Office at x6-3797 for specific advice.</p>
Solid	<p>Segregate waste by radionuclide e.g., <sup>32</sup>P, <sup>125</sup>I, <sup>14</sup>C, <sup>35</sup>S, <sup>3</sup>H</p> <p>Deface (tear off/scratch out/cover with a marker) "radioactive" symbols/labels/markings. Collect defaced, segregated solid waste (excluding iodine and animal carcasses) in 4-mil thick clear plastic bag. Place iodine waste into two individually-taped 4-mil thick clear plastic bags. Maintain running estimate of the radioactivity per bag. Use tape or the completed radiation waste tag to close the bag.</p> <p>Place animal carcasses and animal and human pathological waste in a 4-mil thick black plastic bag. Use tape or the completed radiation waste tag to close the bag, and store in a designated freezer.</p> <p>Package lead "pigs" or lead shielding separately in plastic bags for pickup.</p>	<p>Collect solid chemical waste in containers (pails or plastic bags) at an SAA labeled with a green SAA sign. Attach a completed hazardous waste tag to each waste container.</p> <p>When a waste container is ready for pickup, date the tag and request a pickup. Dated waste must be picked-up within 3 business days.</p> <p>Empty <u>acutely hazardous (P-Listed)</u> chemical bottles must be tagged as hazardous waste.</p> 	<p>Collect BL2 solid waste in rigid, closable containers lined with a red autoclave bag (label containers "biohazard"). After autoclaving BL2, place in a double-lined biowaste cardboard box. It is not necessary to autoclave BL1 solid waste before placing it in a biowaste box.</p> <p>If an autoclave is not available, disinfect BL2 solid waste (except agar plates) by soaking in an appropriate disinfectant, dispose of disinfectant in the sink, and place solid waste in a biowaste box.</p> <p><i>Note: Cover all biowaste containers when not in use. Don't put plates or tubes with liquid in solid waste containers! Write your bldg. and room # on the biowaste box before pick-up.</i></p>	<p>Treat 10% formalin plus non-infectious animal or human tissue as liquid chemical waste and label the hazardous waste tag "10% formalin + non-infectious animal tissue" or "10% formalin + non-infectious human tissue."</p> <p>For biological waste questions, please call 5-2345. For chemical waste questions please call 6-3322.</p>	<p>Disinfect biolog contaminated radiological solid waste by soaking in suitable disinfectant. Discard disinfectant waste in designated and posted sink if radiological contamination is within sink disposal limits.</p> <p>Monitor solid waste for radioactivity. If activity exceeds 1.5X the room background, treat material as radioactive waste.</p>	<p>Please contact the Radiation Protection Office at x6-3797 for specific advice.</p>
Sharps	<p>Place all radiologically contaminated sharps in a biosharps container labeled: "<i>Caution Radioactive Waste Sharps</i>"</p> <p>Place the biosharps container in plastic bag. Use tape or the completed radiation waste tag to close the bag.</p>  	<p>Collect sharps (needles, scalpels, razor blades, slides, coverslips, Pasteur pipettes, capillary tubes) with minimal residue (not dripping or thickly encrusted) in a biosharps container. <i>Attain Biosharp containers at any VWR stockrooms.</i></p> <p>When the container is ¾ full, close it and place in a double-lined biowaste box. <b>DON'T OVERFILL THE BIOSHARPS CONTAINER.</b></p> <p>Dispose of empty glass bottles (intact/broken or plastic-coated) in a cardboard box labeled "glass bottles for recycling." When full, tape box and leave in lab for custodial pick-up. Empty <u>acutely hazardous (P-Listed)</u> chemical bottles must be tagged as hazardous waste.</p>	<p>Collect sharps (needles, scalpels, razor blades, slides, coverslips, Pasteur pipettes, capillary tubes, broken contaminated glass) in a biosharps container. Note: plastic serological pipettes are not considered "sharps" unless they are broken and have a sharp point.</p> <p>When the container is ¾ full, close it, and place in a double-lined biowaste box. <b>DON'T OVERFILL THE BIOSHARPS CONTAINER.</b></p> <p>Empty uncontaminated media bottles may be placed in a cardboard box labeled "glass bottles for recycling." When full, tape the box and leave in the lab for custodial pick-up.</p>	<p>Biological sharps with minimal chemical residue can be placed in biosharps container.</p> <p>For biological waste questions, please call 5-2345. If there significant chemical residue, please call 6-3322.</p>	<p>Please contact the Radiation Protection Office at x6-3797 for specific advice.</p>	<p>Please contact the Radiation Protection Office at x6-3797 for specific advice.</p>
Waste Pickup and Supplies	<p>Use the <u>Radiation Protection Office online form</u> to request a waste pickup. Waste supplies will be available from staff during pick-ups.</p>	<p>Use the <u>hazardous waste online form</u> or call x6-3322 to request a waste pickup or supplies (tags/bins.). Call this number for questions as well.</p>	<p>To request burn boxes/biowastes supplies call the EH&amp;S Cambridge Biosafety Office at 5-2345</p>	<p>This guide applies to many, but not all, substances/situations.</p>		