





## University of Ottawa Autoclave Procedures

LABORATORIES - ROLES & RESPONSIBILITIES	
Autoclave Facility	
<b>Location:</b> <b>Faculty/Department:</b> <b>Building/Room:</b>	<b>Service Hours:</b>
Items for Autoclaving	
CAN	CANNOT
<ul style="list-style-type: none"> <li>- Cultures &amp; stocks.</li> <li>- Culture dishes &amp; related devices.</li> <li>- Discarded live &amp; attenuated vaccines.</li> <li>- Contaminated solid items. (Petri dishes, Eppendorf tips, pipettes, gloves, paper towel.)</li> <li>- Items for sterilization such as glassware, media, water, equipment.</li> </ul>	<ul style="list-style-type: none"> <li>- Materials containing solvents, volatile or corrosive chemicals.</li> <li>- Material contaminated with chemotherapeutic agents.</li> <li>- Radioactive material.</li> </ul>
Packaging	
<ul style="list-style-type: none"> <li>- Use only approved autoclave bags.</li> <li>- Containers must be heat resistant.</li> <li>- Do not overfill autoclave bags or containers. (Do not fill beyond 75% of holding capacity.)</li> <li>- Do not compress material – sufficient space is required to ensure steam penetration.</li> <li>- Dry material should be separated from liquid material.</li> <li>- If outside bag is contaminated, apply a second autoclave bag.</li> </ul>	
	
Transport & Labeling	
<ul style="list-style-type: none"> <li>- Surface decontaminate prior to transport.</li> <li>- Use secondary containers.</li> <li>- Use a cart with guard rails.</li> <li>- Flasks must be capped with at least aluminum foil.</li> <li>- Use a direct but not heavily populated route.</li> <li>- Bags should be closed for transport.</li> </ul>	<ul style="list-style-type: none"> <li>- All material to be autoclaved must be labeled with a complete uOttawa hazardous waste label.</li> </ul>
Cycle Instructions	Disposal
<ul style="list-style-type: none"> <li>- Instructions about type of cycle the user wishes to run must accompany all materials. For example:</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure your waste was autoclaved to specifications. Autoclaved waste will have the biohazard symbol defaced, an 'Autoclaved Biomedical Waste: Non-Hazardous' sticker affixed, as well as heat sensitive tape.</li> <li>- Place bag inside a black garbage bag, close &amp; dispose in the regular garbage.</li> </ul>
Training Requirements	For more information
<p>All lab personnel must</p> <ul style="list-style-type: none"> <li>- Read the 'Guidelines to the Safe Use of Autoclaves'.</li> <li>- Complete the Autoclave Safety Training.</li> </ul>	<ul style="list-style-type: none"> <li>- Email: <a href="mailto:bio.safety@uottawa.ca">bio.safety@uottawa.ca</a></li> <li>- Phone: 613-562-5800 ext. 3153/8081</li> </ul>

AUTOCLAVE OPERATORS - ROLES & RESPONSIBILITIES	
Autoclave Facility/Owner	
<b>Location:</b>	<b>Service Hours:</b>
<b>PPE:</b>   	
Loading	Operation
<ul style="list-style-type: none"> <li>- Ensure material is acceptable for autoclaving.</li> <li>- Separate similar loads</li> <li>_____</li> <li>_____</li> <li>- Use secondary containers.</li> <li>- Load material to ensure steam penetration.</li> <li>- Ensure all containers &amp; bags are well vented.</li> <li>- Add 250ml of water when necessary.</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure autoclave is operating properly before commencing cycle.</li> <li>- Ensure cycle is appropriate for the load.</li> <li>- Check cycle log recorder to ensure autoclave attains desired temperature; pressure; and duration.</li> </ul>
Unloading	Disposal
<ul style="list-style-type: none"> <li>- Wait until chamber pressure gauge reaches zero before opening the door.</li> <li>- Open door slightly to allow any remaining steam to dissipate (protect yourself from the steam).</li> <li>- Remove waste safely wearing heat resistant gloves (avoid spillage, use a trolley).</li> <li>- Verify heat sensitive tape.</li> </ul>	<ul style="list-style-type: none"> <li>- Allow containers to cool off and move to pick-up site (draft free area).</li> <li>- Deface biohazard symbol &amp; affix a 'Autoclaved Biomedical Waste: Non-Hazardous' sticker.</li> <li>- Ensure waste is picked up within _____</li> </ul>
Record Keeping	Quality Control
<ol style="list-style-type: none"> <li>1. Daily Autoclave Use Log (fill in for every load) must be kept for a period of <b>5 years</b>.</li> <li>2. Validation Records (Biological Indicator results) must be kept for a period of <b>5 years</b>.</li> <li>3. Performance Records (record any problems encountered and the remedial action) must be kept for a period of <b>5 years</b>.</li> <li>4. Cycle log recorder print-outs must be kept for a period of <b>5 years</b>.</li> </ol> <p><b>!</b> Records must be available for review by ORM and regulatory bodies (Ministry of the Environment, Public Health Agency of Canada or Canadian Food Inspection Agency)</p>	<ul style="list-style-type: none"> <li>- Biological indicator test must be conducted consecutively for <b>6 days</b> to ensure effectiveness of the autoclave.</li> <li>- Once the above has been established, biological indicator tests must be done <b>every six operating days</b> and the results recorded.</li> <li>Test schedule: _____</li> <li>Biological Indicator: _____</li> <li>- Heat sensitive tape should be applied to all loads.</li> </ul>
Maintenance	Training Requirements
<ul style="list-style-type: none"> <li>- Check gaskets every _____</li> <li>- Disinfect exterior surfaces every _____</li> <li>- Clean interior every _____</li> <li>- Annual inspections and maintenance</li> </ul> <p>Contact: _____</p>	<p><b>All staff must:</b></p> <ul style="list-style-type: none"> <li>- Read the 'Guidelines to the Safe Use of Autoclaves'.</li> <li>- Complete the Autoclave Safety Training.</li> </ul>