Materials Sterilization and Biohazardous Waste Decontamination Guidelines **User Precautions** Record each use of the autoclave **Typical** *Glassware Dry Items Liquids Wear eye protection, lab coat, gloves **Articles** and heat resistant gloves Plastics used for autoclaving MUST be autoclavable Loosely pack waste bags no more than 2/3 full Sharps must not be placed directly into an autoclave bag; use a rigid Preparation Dirty/Soiled Clean **Fabrics** Instruments Loosen caps or use vented closure container Place in Wash Wrap Clean and Dry Fill to no more than autoclavable pans Rinse Lay in Pan Avoid overloading an autoclave or 75% capacity on side or inverted Wrap Wrap allowing a load to contact the chamber *Use type I (if needed) borosilicate glass **Avoid** transferring waste contents from an overfilled bag to another bag **Placement** On side or Do not leave an autoclave operating On side or Separated on Flat in inverted in pan Upright in pan unattended for long periods of time; inverted edge with water **Autoclave** periodically monitor in case of failure Never autoclave solvents or combustible, volatile, flammable, radioactive or corrosive materials Remove extraneous items and combustible materials from the autoclave area **Cycle Time** Loading 45-60 15-20 15-20 (clean) 15-20 (clean) 15-20 (clean) in Minutes

Follow manufacturer's loading instructions for your autoclave model

Transport loads on a cart and in secondary containers or trays to reduce spills

Item /container sterilization

Loosen lids to avoid dangerous pressure build-up during cycle

Place containers in a tray and load the tray into the autoclave. Do not place items directly on the autoclave chamber floor

Improve heat distribution around containers, by adding 1-2 cm of water to autoclave travs.

Refrain from placing liquid items above non-liquid items on an autoclave rack

Contaminated bagged waste materials

Always handle waste bags from top Load bags of waste on a tray; do not load directly onto a rack or the autoclave chamber floor

Loosen bag tops; add water to bags if needed to assist steam generation

Notes

(minimum)

*Glassware with cracks or deep scratches may break Hot bottles and liquids may explode! Allow to cool before moving

Avoid puncturing biohazard waste bags Dispose of waste properly after autoclaving

45-60 (dirty)

45-60 (dirty)

Spills and accidental breakage

Notify a supervisor or department safety officer and follow departmental procedures for a spill or exposure event or injury incident

45-60 (dirty)

Post signs warning others in area of spill during clean up, or while allowing area to cool prior to clean up

For liquid spills

- If inside a hot autoclave, allow autoclave to cool sufficiently prior to cleanup.
- If possible, clean up immediately with appropriate absorbent and disinfectant/cleanser for material. Take care if material is hot from autoclave.

For solid material spill or breakage

- Allow autoclaved items to cool sufficiently prior to cleanup.
- Clean up immediately using appropriate means for material and disinfectant if necessary.
- Do not pick up broken glass with hands; use dustbin or cut resistant gloves and dispose in proper receptacle

The UW-Madison Institutional Biosafety Committee (IBC) requires that Principal Investigators report all potential exposures to or releases of organisms or biological toxins within 24 hours of the event by completing a FIRST REPORT of Exposure/Release Form

Unloading

Wear eye protection, lab coat, gloves and heat resistant gloves

Biohazard

No more than

Close loosely

autoclavable

Affix indicator if

2/3 full

Place in

pan

needed

In Pan

45-60

Bags

Loosely

Open the autoclave door ONLY after the cycle is finished

Open door a few inches to allow steam to vent for a few minutes before fully opening

Keep hands and face away from escaping

Slowly remove items from the autoclave; take care to not touch hot surfaces or spill liquid from pans or containers

Place items on a heat tolerant surface and allow to air-cool for 15 minutes (liquids may take up to an hour to cool)

Notify others in area verbally or through the use of signage to avoid touching hot items

Routine Maintenance and Efficacy Testing

Follow the manufacturer's instructions or contact the UW-Madison Office of Biological Safety for information

Autoclave efficacy must be tested using a biological or chemical indicator on a regularly scheduled basis (minimum monthly)

Record test date, result and related information

Indicators can be ordered through lab supply vendor(s)

Office of Biological Safety

University of Wisconsin - Madison Environment, Health and Safety Department 30 East Campus Mall

Madison, WI 53715-1227 Phone: (608) 263-2037 FAX: (608) 265-8700

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