

# Microbiology Laboratory Safety Rules and Procedures

## Youngstown State University

Each student enrolled in a microbiology laboratory at Youngstown State University must follow specific safety rules and procedures. In addition to those rules and procedures listed in the back of your laboratory manual, other important rules are listed below. Some of these rules are redundant, but certainly warrant your attention. Both of these lists are requisite material for students to understand and follow.

### General Safety Rules and Procedures

- 1) No food or drinks are permitted in the laboratory at any time.
- 2) Only closed-toe shoes are to be worn in the laboratory. Sandals are not permitted.
- 3) Keep hands and other objects away from your face, nose, eyes, ears, and mouth. The application of cosmetics in the laboratory is prohibited in the laboratory.
- 4) Work areas/surfaces must be disinfected before and after use.
- 5) Laboratory coats and gloves must be worn and buttoned while in the laboratory. Laboratory coats should not be worn outside the laboratory.
- 6) Protective eyewear must be worn when performing any exercise or procedure in the laboratory.
- 7) Long hair should be secured behind your head.
- 8) Hands must be washed before leaving the laboratory.
- 9) All unnecessary books, purses, briefcases, etc., must be placed in the “cubbies” provided.
- 10) Never pipette anything by mouth (including water). Always use pipetting devices.
- 11) Label all materials with your name, date, and any other applicable information (e.g., media, organism, etc.) using a Sharpie or similar marker.
- 12) Dispose of wastes in their proper containers (see Biohazard Waste Disposal below).
- 13) When handling chemicals, note the hazard code on the bottle and take the appropriate precautions indicated.
- 14) Do not pour chemicals down the sink.
- 15) Return all chemicals, reagents, cultures, and glassware to their appropriate places.
- 16) Do not pour bio-hazardous fluids down the sink.
- 17) Flame transfer loops, wires, or needles before and immediately after use to transfer biological material.
- 18) Do not walk about the laboratory with transfer loops, wires, needles, or pipettes containing infectious material.
- 19) Be careful around Bunsen burners. Flames cannot always be seen.
- 20) Turn off incinerators before leaving the laboratory.

- 21) Report any broken equipment.
- 22) Immediately, report any broken glass or spills, especially those containing infectious materials. Follow all instructions given by your course instructor or TA for cleaning up any spills or broken glass.
- 23) If you are injured in the laboratory, immediately contact your course instructor or TA.
- 24) Any chemical or biological fluid spills must be immediately reported to your course instructor or TA.
- 25) Familiarize yourself with safety equipment in the laboratory and emergency escape routes.
- 26) Always wipe and clean the lenses of your microscope before putting it away. Use the appropriate tissue paper and cleaning solution for this purpose.
- 27) Use appropriate universal precautions with all biological fluids.
- 28) Do not remove any materials from the laboratory without the written permission of the course instructor or TA.

**Biohazard Waste Disposal**

Dispose of items in the special receptacles as indicated below. If you have a question regarding the proper disposal of an item, please ask your course instructor or TA.

Material Method of Disposal	Method of Disposal
Agar slants with biological material	Place tube upright in indicated test tube rack, but place caps in basket as indicated
Biological liquids (not in test tubes)	Leave in container with closed cap and/or follow specific instructions given by the TA or course instructor
Biological liquids in test tubes	Place tube upright in indicated test tube rack with caps left on the tube
Broken glass (contaminated)	Sharps container
Broken Glass (not contaminated)	Broken glass container
Cotton Swabs (contaminated)	Benchttop disinfectant/discard can
Glass slides and other types of sharps	Sharps container
Non-contaminated paper	Regular trash
Petri dishes/contaminated solids	Biohazard “orange/red bag” container
Transfer pipettes (contaminated)	Benchttop disinfectant/discard can

In general, non-contaminated items that pose no threat as a sharp may be disposed by placing them in the regular trash. All sharps, contaminated or not, should be discarded into the sharps container. All other contaminated materials have specific locations in which they are discarded.