

Title: Drain Disposal Guidelines for Laboratory Wastes	Document No.: CH-014-A
	Revision No.: 00 Date: 8-28-09
	Approved By: Al Swavy

- 1.0 Purpose:** The purpose of this policy is to provide guidance for the drain disposal of certain aqueous solutions.
- 2.0 Scope:** Policy applies to all university laboratories, research areas, art studios, and other spaces serviced by UB Environment, Health and Safety.
- 3.0 Applicable Guidelines:** Refer to Hazardous Waste Guidebook, section 5.3.1.
- 4.0 Responsibilities:** The primary responsibility for following this policy rests with the principal investigator or supervisor of the area where this type of waste exists. Any researchers, students or other employees who manage hazardous wastes in the areas listed above must be trained and made aware of this policy. If there is any doubt or question if a particular solution is suitable for drain disposal, contact the EHS Service Request Line at 829-2401.
- 5.0 Definitions:**
- 5.1 USEPA Hazardous Waste:** A waste that poses substantial or potential threats to public health or the environment and generally exhibits one or more of these characteristics; flammable, corrosive, toxic, or reactive. These wastes must be collected and disposed per strict Environmental Protection Agency (EPA) regulations contained in various publications located in the Code of Federal Regulations.
- 5.2 Aqueous Waste:** Aqueous Liquid Waste denotes any waste of which the primary solution is water and any soluble organic and inorganic constituents, all present in quantities and forms that do not result in phase separation or precipitation. For purposes of this policy, only aqueous wastes that are **NOT** USEPA hazardous wastes will qualify for drain disposal.
- 6.0 Procedures and Requirements:**
- 6.1** Only aqueous solutions in normal laboratory volumes (<1 gallon) may be drained disposed. The solution must be single phased and not contain any organic layering of liquids. The pH of the solution must be determined using either a pH meter or paper and must be between 5 and 9.
- 6.2** The solution must not contain any of the following:
- Carcinogens or toxic chemicals
 - Heavy metals (e.g., arsenic, barium, copper, cadmium, chromium, lead, mercury, nickel, selenium, silver, etc.)
 - Cyanides or sulfides
 - Organic solvents (whether miscible or not)
 - Infectious agents
 - Radioactive substances
- 6.3** The following solutions are generally acceptable for drain disposal:
- Ethanol and other alcohol solutions with a concentration <24%

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- Saline or inorganic buffer solutions, TRIS or other similar organic buffer solutions, sugar and other non toxic salt solutions
- Liquid blood, serum, or plasma from animals or humans not known to contain pathogenic organisms
- Liquid blood, serum or plasma known or suspected of containing pathogenic organisms may be drained disposed after appropriate verifiable disinfection or sterilization
- Liquid tissue culture media, fresh or spent supernatant, which has been rendered non-infectious, including culture media containing serum additives such as fetal calf serum
- Solutions containing disinfectants at used concentrations, such as 0.5% bleach. Undiluted disinfectants or sterilants may not be drain disposed. They must be containerized for proper disposal.

6.4 The following solutions are **NOT** acceptable for drain disposal:

- Bi or multi layered liquids or aqueous phases of organic solvent separations
- Miscible water solvent mixtures, (e.g. acetone/water, etc.). Water/ethanol or other alcohol mixtures >24%
- Histological preparation materials (formalin, staining solutions, xylene containing cleaning agents
- Ethidium bromide solutions
- Gels (agar, electrophoresis plates, gelatin, etc.)
- Hazardous chemicals of any kind

7.0 Document Management: This procedure shall be reviewed once every two years, or as changes require.

8.0 Associated UB Documents:

8.1 *Campus Commitment to Safety*, University at Buffalo, Office of the Provost, Office of the Senior Vice President, April 3, 2001.

9.0 Associated EH&S Documents:

9.1 Hazardous Chemical Waste Management Guidebook, section 5.3.1

10.0 Document Revision History:

Revision	Section(s) Changed	Change(s) Made:	Date
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12.0 Document Author: Tony Oswald, Hazardous Waste Manager