APPENDIX E

MORE FORMS

Appendix E: Tab 7

HAZCOM (Hazards Communication) Labeling

Requirements for labeling:

A. Chemicals (liquid or dry) including smaller quantities of a chemical from a larger or bulk container:

1. Identity of the chemical
2. Directions for use, storage and disposal
3. Hazard warnings (flammable, corrosive, toxic, combustible, etc.)

B. Reagents (mixtures of chemicals), Hazardous Waste or "Used Chemicals" generated from laboratory procedures:

1. Identity of the chemical constituents
2. Directions for use, storage and/or disposal
3. Hazard warnings (flammable, corrosive, toxic, combustible, etc.)
4. Date made and the initials of the person who made the reagent

NOTE: If a chemical, reagent, hazardous waste or used chemical is put into any container with a label for the original contents, remove or deface that label and re-label with the new contents.

SUGGESTIONS FOR SAFE STORAGE OF LABORATORY REAGENTS

Acids and Bases:

1. Vessels containing acids and bases should be stored in secondary containers of sufficient volume to completely contain a loss of contents in the event of breakage or leakage of the primary vessel.

2. Acids and bases should be stored separate from one another (i.e., placed in separate secondary containers).

3. Oxidizing acids (nitric, sulfuric, perchloric) should be separated from all organic compounds, including organic acids such as acetic acid.

4. Perchloric acid should never be stored in wooden cabinetry, owing to the possibility of spontaneous combustion of perchloric acid-soaked wood which may occur should the acid leak into the wood.

Solvents:

1. Solvent vessels should be stored in secondary containers of sufficient volume to completely contain a loss of contents in the event of breakage or leakage of the primary vessel. The secondary containers must be chemically resistant to attack by the solvents.

2. Solvents should be stored only in ventilated areas (in ventilated solvent cabinets underneath chemical hoods <u>if</u> the cabinet is ventilated by the hood (note that some hood cabinetry is sealed from the hood ventilation system and is thus not suitable for storage of volatile or hazardous chemicals).

3. Ethers such as diethyl ether should be disposed of in accordance with the expiration date on the label. Because explosive peroxides may be formed upon storage, special care must be exercised in disposing of ethers. The dangers of explosion increase dramatically upon removal of the solvent, so bottles or cans of ethers should never be merely allowed to evaporate to dryness in a hood. Small amounts may be disposed of by first adding a small amount of water to the can or bottle and then allowing the ether to evaporate in a chemical hood; the remaining aqueous solution may be disposed of as a waste solvent. Larger quantities of ether should be disposed of by burning in an EPS-approved incinerator following adequate dilution with less volatile solvents.

SURPLUS CHEMICALS FORM

1. This form is intended for disposal of surplus or unwanted laboratory chemicals. We try to recycle as much as possible; your "waste" may be usable by others. To dispose of waste solvents in carboys, please use the green "Chemical Inventory Analysis for Waste Solvents in Carboys" form.
2. You can safely manage many chemicals, such as acids, ethidium bromide solutions and simple salts, in your laboratory. Refer to Part G of the *Chemical Safety and Disposal Guide* for further instructions.
3. Please complete this form legibly, printing is preferred. An example is provided on the reverse of this form.
4. Convert units for amount to g or L and indicate in proper column.
5. Use additional sheets as necessary.
6. When you have surplus chemicals for pickup, call the Safety Department at 262-8769. You will need to give your name, phone number, building, room number and a brief description of the chemicals you have for pickup.
7. Packaging surplus chemicals is no longer necessary; our staff will come to your room and remove your surplus chemicals and carboys. We can also drop off empty carboys at this time.

NAME	ROOM NUMBER/ BUILDING	TELEPHONE NUMBER	SHADED AREA OFFICE USE ONLY
FACULTY MEMBER	DEPARTMENT	DATE	PROCESSING DATE / INITIALS

NUMBER OF CONTAINERS	WASTE TYPE	CHEMICAL NAME OR DESCRIPTION PLEASE PRINT	AMOUNT PER CONTAINER	ROUTE/ID	HWNO	SEALED	MANUF	PURITY	LOCATION	DISPOSAL DATE	BASIS CODE
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					
			g/L			Y/N					

If you have any disposal questions contact the UW-Madison Safety Department at 262-8769

6/94

General Guidelines for Using the Safety Department's On-Site Hazardous Materials Management Service

This service is only for the removal of surplus chemicals and chemical wastes. For disposal of:

- animal tissue, carcasses and bedding, use a pink "Animal Tissue Disposal Service" form
- biohazardous (infectious) waste, see *Guidelines for Handling Pathogenic Microorganisms,* from the UW Biological Safety Office
- radioactive waste, see Section XIX of the UW-Madison *Radiation Safety Guide* and use the pumpkin "Radioactive Waste Disposal" form or the blue "Radioactive Animal Tissue" form
- sharps (needles, pipettes and broken glass) not contaminated with chemicals, consult your laboratory manager

Prior to a visit by the Safety Department, describe the chemical or waste on this form. Many department offices and stock rooms have these forms. The Safety Department will mail them to you upon request. You no longer need to package surplus or unwanted chemicals or bring them to the loading dock; the Safety Department will come directly to your room to pick them up. Do not leave chemicals or waste in a hallway.

Labware Contaminated With Chemicals

Contaminated labware includes disposable gloves, aprons, bench top coverings, centrifuge tubes, pipets, pipet tips, test tubes, and unwanted glassware and other items that are contaminated with a chemical. This is a very large laboratory wastestream. Its hazard depends on the amount, toxicity and environmental fate of the contaminant.

Many of these items are typically cleaned and reused-and this is the best way to minimize this waste. The vast majority of waste labware that is not reused can safely be disposed of in the normal trash or the appropriate sharps or glass disposal container. To minimize the amount of waste contaminated labware that needs to be disposed commercially decontaminate with an appropriate detergent or solvent . Keep contaminated labware separate from non-contaminated labware whenever possible by using separate waste collection containers.

Example:

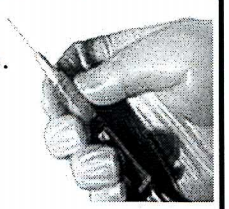
NAME	ROOM NUMBER/ BUILDING	TELEPHONE NUMBER	SHADED AREA OFFICE USE ONLY	
Chris Researcher	*1000 Research Hall*	*262-8769*		
FACULTY MEMBER	DEPARTMENT	DATE	PROCESSING DATE	INITIALS
Dr. Jane Doe	*Medicine*	*6/30/94*		

NUMBER OF CONTAINERS	WASTE TYPE	CHEMICAL NAME OR DESCRIPTION	AMOUNT PER CONTAINER	ROUTE/ID	HWNO	SEALED	MANUF	PURITY	LOCATION	DISPOSAL DATE	BASIS CODE
2		*Phenol, solidified*	450 g/L			Y/N					
1		*Contaminated labware:*	2500 g/L			Y/N					
		Benchcovers, gloves, wipes,	g/L			Y/N					
		pipet tips with 100 mg/L	g/L			Y/N					
		Ethidium Bromide in ethanol	g/L			Y/N					
1		*Thermometer bulb w/ mercury*	5 g/L			Y/N					
			g/L			Y/N					

Sharps and Laboratory Glass Disposal

NEEDLES AND OTHER SHARPS

Sharps: Items designed to cut or puncture skin and sharp items contaminated with human blood and body fluids.



- Needles and syringes with needles
- Lancets
- Scalpels and razor blades
- Contaminated broken vials, hematocrit tubes, Pasteur pipettes and laboratory slides

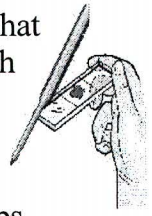
OSHA-Approved Sharps Container: Closable, puncture resistant, leakproof, plastic sharps container.
Obtain from: Laboratory supply/safety catalog.

Disposal Procedure:

- Collect in an OSHA-approved sharps container.
- When full take to a sharps collection area and deposit container in the red plastic collection can. (Ask your building manager for the location)

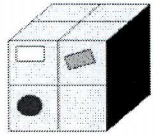
HAZARDOUS GLASS AND PLASTIC

Hazardous Glass and Plastic: Items that can injure if disposed of in normal trash containers.



- Pasteur pipettes
- Other pipettes and tips
- Uncontaminated slides and cover slips
- Broken or fragile glass

Sturdy, Leakproof Cardboard Boxes:



- Use plastic liner.
- Double box or tape seams to contain waste.
- Use packing tape, not lab tape or masking tape.
- Limit weight to 20 lbs.
- Limit bottom size to 12"x12"
- Use discarded boxes or obtain boxes from a lab supply catalog.

Disposal Procedure:
- If contaminated with infectious agents or human blood, decontaminate first.
- Empty the item of hazardous chemicals and drain liquids.
- Tape box closed.
- Mark box with the words "Hazardous Glass for Disposal" and your room number.
- Place in hallway next to your lab door.

EMPTY BOTTLES, OTHER GLASS AND PLASTIC

Unbroken Glass and Plastic: Items that present no hazard if disposed of as normal trash.

- Petri dishes (decontaminated)
- Sturdy test and centrifuge tubes
- Empty bottles

Regular Lab Wastebasket

Disposal Procedure:

- If contaminated with infectious agents or human blood, decontaminate first.
- Empty the item of hazardous chemicals, rinse and drain liquids.
- Place in wastebasket
- Place large (4 liter) bottles next to wastebasket.

Some buildings (for example, Chemistry and the University Hospital) may have their own disposal methods. Contact your building manager.

(rev. Aug. 2002)

UW Safety 265-5518 **www.fpm.wisc.edu/safety**