

BINGHAMTON UNIVERSITY

**DARKROOM
HAZARDOUS
WASTE
MANAGEMENT
GUIDE**

This booklet will provide you with the information you need in order to run a safe and legal darkroom.

If you have any questions regarding this guide or darkroom safety please contact Environmental Specialist from the office of Environmental Health & Safety at x7-2211 or by e-mail at hazwaste@binghamton.edu

Darkroom Manager Responsibilities

Prior to beginning photo-developing operations,
the following procedures must be followed.

- ◆ **Completely read this guide**

*This guide contains valuable information that will help you run your darkroom safely and efficiently. As the darkroom manager, it is not only your responsibility to read and understand this guide, but you are also responsible to make sure **all** darkroom users read and understand the guide. If you have any questions regarding any of the information covered in this guide, please contact the Environmental Specialist, at (x7-2211).*

- ◆ **Contact Environmental Health & Safety (x7-2211)**

Environmental Specialist is responsible for darkroom safety on campus and he will be your contact person for training, hazardous waste removal and all other safety concerns. He or She must have your name as the Darkroom Manager so that all appropriate information may be forwarded to you.

- ◆ **Attend a mandatory training session.**

All people working in a campus darkroom must attend a mandatory training session. Call EH&S to schedule a training session.

- ◆

- ◆

EMERGENCY PROCEDURES

For minor spills that are known to be of limited danger:

Begin the cleanup immediately by using the proper personal protective equipment (PPE) such as gloves, goggles, etc.

Spill control usually begins by spreading an absorbent material, like 1:1:1 absorbent clay, sand and sodium bicarbonate on the spill.

After allowing the chemical to absorb, scoop up the material and deposit into an appropriate container, usually a one or five gallon plastic container. Wipe up the contaminated surface with soapy water and a sponge and then place into the disposal container. Seal the container and label it with a "Hazardous Chemical Waste Tag" for disposal. Immediately report the spill to Environmental Health and Safety at x7-2211.

In the event of a MAJOR chemical spill:

A spill will be considered major if the spill involves a large quantity of chemicals, an unknown chemical, a small quantity of a high hazard chemical or a chemical that you are not equipped to safely handle. The following procedures should be followed during a major spill:

- Evacuate the room
- Evacuate the floor and/or building as necessary
- Report the spill (**DIAL 911**) or (**x7-2393**) on your cell phone
- Limit access to the area
- Stand by from a safe place until help arrives

When reporting a spill, you will be asked for the following information:

- Where the spill occurred (building and room number)
- The materials involved (**SPELL CLEARLY** and **SLOWLY**)
- The amount spilled
- Any immediate actions you took
- How the spill occurred (if you know or can guess)
- Who first observed the spill and at what time
- Are there any injuries
- A call back number (if available)

Appropriate Storage Practices

All chemicals must be stored appropriately. This includes proper labeling, proper placement (*off the floor*) and compatible storage containers. Improperly stored chemicals can result in the following dangerous conditions:

- Release of potentially toxic vapors
- Degraded containers that allow chemicals to become contaminated.
- Degraded containers releasing vapors that can affect the integrity of nearby containers.
- Degraded labels that result in generation of unknowns.

MATERIAL SAFETY DATA SHEETS (MSDS)

As part of the OSHA Hazard Communications Standard, Binghamton University is required to have Material Safety Data Sheets (MSDS) available to any individual working with hazardous chemicals. The regulations state that faculty, staff and students “have both a need and a right to know the hazards and identities of the chemicals they are exposed to when working. They also need to know what protective measures are available to prevent adverse effects from occurring.”

Information that can be found in a MSDS includes:

- The identity of the chemical substance
- Physical and chemical characteristics
- Physical and health hazards
- Primary routes of entry
- OSHA Permissible Exposure Limits (PEL's)
- Carcinogenic status
- Precautions for safe handling and use (including personal protective equipment)
- Spill response
- Emergency and first aid procedures
- Date of the MSDS

Appendix B contains generic MSDS related to a few of the common chemicals found in darkrooms. These MSDS are intended for general hazard information only and should not replace the specific MSDS from your chemical supplier. A central campus file of MSDS sheets is maintained at the Department of Environmental Health & Safety. Any chemical shipment received should be accompanied by an MSDS. Please send a copy to EH&S to help keep our files up to date and current. If you do not receive a MSDS with a shipment or would like to request a MSDS for a previously purchased chemical, contact EH&S at x7-2211.

MSDS sites on the Internet

There are many sites on the internet that list darkroom related MSDS. Below is a list of web sites that either contains actual MSDS databases or links to databases.

- <http://www.kodak.com/US/en/corp/hse/prodSearchMSDS.shtml>
- <http://www.siri.org/>
- <http://www.ilpi.com/msds/index.html>

GENERAL SAFETY RULES

- Read the MSDS prior to working with a chemical.
- Keep the work area clean and uncluttered to prevent tripping hazards.
- Wet and dry areas should be clearly separated.
- Always segregate chemicals. (Don't store acids near Farmer's reducer).
- Do not store chemicals on the floor.
- Do not eat, drink or smoke in the darkroom.
- The darkroom should be well ventilated (10 – 20 air changes per hour).
- Always wear appropriate Personal Protective Equipment (PPE) (Gloves, Goggles, etc.)
- Always wash hands with soap and warm water after working with chemicals.
- Know how to use emergency equipment prior to an actual emergency.
- **Always Add Acid** to water, never water to acid. (Remember 'AAA')
- Keep a spill kit in the darkroom.
- Do not use paper towels or saw dust to clean up acid spills as this may cause a fire.
- Pregnant women should not be exposed to powdered developer.
- Store all chemicals in locations that will minimize the chance of breakage and splashing.
- Label all containers.
- Keep all containers and trays closed or covered when not in use to prevent the release of toxic gases.
- Do not wash any chemicals down the sink.
- All spent chemicals should be placed into an appropriate waste container. (A container the same as the one the chemical was originally shipped in is best).
- E-mail hazwaste@binghamton.edu for waste pickup when container is full.

Appendix A

Chemical Alternatives / Recommendations

CHEMICAL	ALTERNATIVE / RECOMMENDED CHEMICAL
Developer	Phenidone
Stop Bath	