Unknown Chemical Procedures

Federal and State regulations specifically prohibit the transportation, storage, or disposal of hazardous waste of unknown identity. There are very significant penalties, both civil and criminal, for offering hazardous waste for transportation or disposal without an accurate identification. The process for identifying an unknown chemical can be tedious and costly. All possible steps can and should be taken to avoid or minimize the generation of unknown chemicals and identify unknown chemicals when they are discovered.

**Preventing Unknown Chemicals**

- Label ALL containers (including beakers and test tubes) properly. This should be done even when creating reagent solutions for temporary use. Do not use abbreviations, chemical structures or formulae.
- Inspect containers and labels periodically and replace fading or deteriorating labels.
- Expired chemicals should be properly discarded.
- Maintain an accurate inventory.
- Require departing lab workers to properly identify any unknown material before they leave the lab.

**Labeling Unknown Chemicals**

When an unknown waste container is discovered, it must be characterized before disposal. All containers of unknown waste should be labeled with the words “Hazardous Waste” and “Pending Analysis”.

**Identifying Unknown Chemicals**

Every effort should be made to properly identify an unknown chemical. When unknown wastes are discovered, the following steps should be taken to help identify the contents.

- Consult with the Principal Investigator (PI) or Lab Supervisor about the type of work that was being conducted or is routinely conducted in the laboratory.
- Ask area personnel about the container. Someone may remember its contents.
- Contact groups that previously used the area and see if they can recall the container’s identity.
- Simple tests such as pH may aid in identification. ESD can provide pH paper.
- Check reagents present; this waste could have been derived from them.

*Do not open or handle an unknown if you suspect that it may react adversely. Please contact ESD Hazardous Materials at (706) 542-5801 or hazmat@uga.edu to assist with identification of unknown chemicals.