Use of Empty Containers for Hazardous Waste Collection

Recently, an amber chemical waste bottle picked-up by EH&S from a laboratory exploded in the OEH&S waste accumulation facility. Fortunately, this occurred when no employees were present. A follow-up investigation revealed that former bottle contents reacted with the introduced waste and apparently produced gas pressurization which caused the bottle to explode.

To prevent this type of incident from recurring in the future, please adhere to the following:

**Determine if the container is empty.** A container is considered empty if the following criteria are met:

- No liquid drains when the container is tilted in any direction.
- No hazardous solid material remains in the container that can feasibly be removed.
- No encrusted material in the container interior walls.

For additional information, refer to Chemical Safety Update: **Disposal of Empty Chemical Containers.**

**Determine if the waste collected waste is compatible** with the former contents of the bottle. You can consult the following resources prior to using a used bottle for chemical waste collection:

- **CAMEO** Chemicals allows you to determine what reactions will result if chemicals are mixed. This site also provides information on chemical hazard properties, fire and explosion hazards and health hazards.
- **Material Safety Data Sheet**
- **EH&S Chemical Safety Update on Incompatible Material.**
- **EH&S Chemical Safety Update Chemical Segregation and Storage Chart.**

If you have any questions regarding chemical compatibility, please contact your department **EH&S Safety Specialist.**