

## Chemical Solvent Waste Disposal (Yellow Flammable Solvents Cabinet)

### 1. Definition:

- a. Chemical waste includes solids, liquids or gases containing or contaminated with any of:
  - Flammable solvents (e.g., acetone, alcohols, acetonitrile)
  - Leachate toxic materials (e.g., heavy metals, pesticides)
  - Corrosives (e.g., hydrochloric acid, potassium hydroxide pellets)
  - Reactive such as oxidizers, cyanides, sulphides, explosives, unstable materials and water-reactive materials (e.g., sodium metal, benzoyl peroxide)
  - Toxic materials including mutagenic, carcinogenic, acute or chronic toxicity materials (e.g., chloroform, ethidium bromide)
  - Polychlorinated biphenyls (> 50 ppm concentration)
  - Non-returnable gas cylinders

### 2. Scope:

- a. This SOP applies to solvent waste collected in the yellow Flammable Solvents Cabinet.

### 3. Responsibility:

- a. The Laboratory is responsible for providing the appropriate containers, labels, and materials
- b. The generator is responsible for the proper collection and labelling of chemical waste using the most chemical-appropriate container. If unsure, TBEP personnel should ask their laboratory manager or contact the Office of Environmental Health and Safety [[ehs.office@utoronto.ca](mailto:ehs.office@utoronto.ca)].
- c. Environmental Protection Services is responsible for collecting waste in accordance with the established schedule.
  - Exception: if containers are not properly labelled.

### 4. Precaution:

- a. Never mix incompatible materials together in a single container. See 5.2.4.1 Chemical Compatibility or contact EHS staff: [<https://ehs.utoronto.ca/laboratory-hazardous-waste-management-and-disposal-manual/chemical-waste-disposal/>]
- b. Wastes must be stored in chemical-compatible containers. For example:
  - **Do not** store hydrofluoric acid waste in glass containers;
  - **Do not** store corrosive chemicals in metal containers.
- c. Solvent safety cans should to be used to collect and temporarily store large volumes (10-20 litres) of flammable organic waste solvents. Cans submitted for disposal will be emptied and returned promptly to the laboratory, provided that they are properly identified with the building and laboratory room number.
- d. Do not insert precipitates, solids or other non-fluid wastes into safety cans.
- e. Package halogenated and non-halogenated solvents separately, if possible.

- f. Dispose of aging containers/volatile chemicals promptly. Some chemicals are time sensitive and may degrade into very hazardous by-products; e.g., ethers may degrade to form explosive organic peroxides.

## 5. Storage and Disposal:

- a. Collect each solvent waste in its compatible container
- b. Ensure the cap is properly tightened
- Do not overfill waste bottles – they should be filled to a maximum of 2/3 full.
- c. Affix the label filled with the following information to the container (see figure 1 below):
- Contact Name or Lab [PI's] Name
  - Building and Room #
  - Contact phone or extension number
  - Hazard Classification (flammable, poison, corrosive, etc.)
  - Identify all contaminants
    - Chemical Name
    - Volume percent of each constituent totaling 100% (include non-hazardous components such as water on the list)
    - pH, if applicable; or N/A if not applicable
- NOTE:** No abbreviations, acronyms or trademark names are to be used. Vague categories (e.g., solvent waste) are not acceptable.

CHEMICAL WASTE	
NAME OF RESEARCHER DR. KATTA LISZT	
LABORATORY Central Lab	
ROOM # 1200	PHONE # 8-7000
LIST OF CHEMICALS	APPROXIMATE %
Methanol	60 %
Chloroform	5 %
Toluene	35 %
NO SYRINGES, BIOHAZARDS OR RADIOACTIVES	
Special Hazards	
<input type="checkbox"/> Unstable/Explosive	<input type="checkbox"/> Organic Peroxide
<input checked="" type="checkbox"/> Corrosive	<input type="checkbox"/> Air or Water Reactive
<input checked="" type="checkbox"/> Other	Flammable / Toxic
WASTE WILL NOT BE REMOVED IF ALL SECTIONS ARE NOT COMPLETED	
For further information call 578-7100	

- d. Place the container in the waste storage cabinet (yellow cabinet)



**IMPORTANT:**

- a. Only store waste in the yellow flammable cabinet on Wednesday afternoons. Pickup occurs on Thursdays and the cabinet is NOT for long term storage.
- b. For any wastes that require special handling such as organic peroxides, PCBs (polychlorinated biphenyls) or explosives, consult the Manager, Environmental Protection Services at 416.978.7000 or email [hazwaste.ehs@utoronto.ca](mailto:hazwaste.ehs@utoronto.ca).

**6. Reference:**

- a. <https://ehs.utoronto.ca/laboratory-hazardous-waste-management-and-disposal-manual/chemical-waste-disposal/>