**HAZARDOUS LIQUID CHEMICAL WASTE FLOWCHART**

Choose a starting Material

- **Solvents**
  - Organic Solvent (<20% water)
    - Examples include acetone, alcohols, hexane, THF, and acetonitrile.
    - Chemicals in this class can be mixed with one another.
  - Halogenated organic solvent (<20% water)
    - Examples include perchloroethylene, methylene chloride.
    - Chemicals in this class can be mixed with one another.

- **Aqueous substances**
  - Rules:
    1. Never mix inorganic acid and organic acid wastes
    2. Never mix oxidizing acid wastes with any other wastes
    3. Before mixing acid wastes, ensure you have a good reference for the process
    4. Labs must develop SOPs for the use, storage and disposal of:
       - aqua regia,
       - piranha solution,
       - hydrofluoric acid,
       - perchloric acid; and picric acid.
       Disposal includes neutralization processes when applicable.

- **Highly reactive materials**
  - Acid
    - Examples:
      1. Halogenated - groundwater contaminated with chloroform or solvent rinses
      2. Non-halogenated - groundwater contaminated with xylene or solvent rinses
      3. Metals - solutions contaminated with heavy metals
      4. Inorganic salts - ferric sulphate, sodium sulphate solutions
      5. Weak acid rinses
  - Base
    - Rules:
      1. Never mix any organic base wastes with inorganic base wastes
      2. Inorganic bases wastes or metal hydroxides wastes may be mixed with one another when compatible.
      3. Organic base wastes or amine wastes may be mixed with one another when compatible.

- **Pyrophorics and Water Reactives**
  - Inorganic Peroxides
    - Peroxides should not be mixed with other substances, Do not mix with other wastes, and determine properties before storing or transporting
  - Organic Peroxides
    - Some organic peroxides are shock, light, and/or temperature sensitive. Do not mix with other wastes, and determine properties before storing or transporting

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**Notes:**
- Compatibility
- Liquid vials (empty liquid into appropriate stream as per chart
- Original containers (leave as is)
- If the waste isn’t on this chart contact esf@uwaterloo.ca AFTER consultation with your PI.