

## Acids and Bases

The following procedure applies to neutralization of acids and bases in a laboratory setting. It does not apply to large quantities of concentrated acids and bases.

- i) Take safety precautions recommended in the MSDS. NOTE: specific procedures must be used for the disposal of Hydrofluoric and Perchloric acids.
- ii) Dilute acid or base to approximately 5% or 1 M by adding to cold/ice water.
- iii) Neutralize by slowly adding neutralizing agent with stirring:
  - For inorganic base for acids, usually 5% solution of sodium hydroxide or sodium carbonate;
  - For inorganic acid for bases, usually 5% solution of hydrochloric acid.
- iv) Confirm that the pH is close to neutral (pH 6-8).

Dispose neutralized solution into the drain unless neutralization product is toxic (*i.e.* contains heavy metals such as arsenic, antimony, cadmium, mercury, chromium, lead, iron, copper zinc and others; or toxic anions such as cyanide, sulphide, etc.).

**Disposal of large quantities of concentrated corrosives, or highly toxic ones, contact HSE**