

Using Acids and Bases

1. Acids and Bases (especially when they are concentrated) are dangerous chemicals and need to be handled properly to ensure that an accident not occur.
2. If you are making an acid or base dilution (in water for instance) from a concentrated solution, always add the concentrated solution to the water. Make sure that you add the concentrated solution slowly. It often will still be exothermic, meaning the addition needs to be done carefully and may require an ice water bath (especially if the solvent has a lower boiling point like methanol).
3. If you are adding a strong acid to a strong base, this must be done slowly and often in an ice water bath because the reaction is exothermic.
4. Reacting acids with sodium bicarbonate or sodium carbonate will release carbon dioxide, so the addition needs to be done slowly, or the solution will fizz over. If you are doing an extraction in a separatory funnel, vent more frequently to release the carbon dioxide.