# Preparation of Standard Solution

0.0020 M KSCN
0.0020 M Fe $(NO_3)_3.9H_2O$

**Materials needed**

- 2 x 100 mL Standard flasks
- Balance (preferably 3 decimal places)
- Funnel
- Clean dry small beaker (50 or 100 mL) for massing the solute (Instead of weighing boat)
- Wash bottle filled with distilled water –(Distilled water placed at the south west corner of the room)

**Preparation of 0.0020 M KSCN / 0.0020 M $Fe(NO_3)_3$**

- Calculate the mass of KSCN needed for preparing 100 mL of 0.0020 M solution
- Take a clean 100 mL standard flask – wash it properly no need to dry the inside
- Place a 50 or 100 mL beaker on the balance and tare it
- Mass the required quantity of the solute into the clean dry glass beaker (instead of a weighing boat)
- Add a small quantity of distilled water and dissolve the solute in the glass beaker
- Transfer the solution to a clean 100 mL standard flask using a funnel
- Care should be taken while transferring, not even a single drop of the solution should be lost in the process – any questions? ask your teacher
- Repeat washing of the beaker a couple of times until the solution is completely transferred.
- Make sure that the amount of water used for washing does not exceed the volume of the standard beaker.
- Once the transfer is complete add water to top up the solution in the standard flask up to the 100 mL mark.
- Close the standard flask and mix the solution completely for uniformity.
- Label the standard flask appropriately.

**Note:** Add approximately 10 mL of 1 M HNO3 while preparing the $Fe^{3+}$ solution to prevent hydrolysis of $Fe^{3+}$.