DETERMINATION OF ASH CONTENT

The ash amount is determined by burning off the plant and calculating the amount of ash obtained.

Amount of ash is determined;

- To understand if the drug is well purified,
- To determine the amount of inorganic substances, mineral salts, metals
- To make sure whether it is adulterated with other drugs.

- The value found is compared with the value specified for the drug in the pharmacopoeia, thus it is determined whether the drug is appropriate for the pharmacopoeia.
- Remaining part of a sample as ash is composed of inorganic substances. The organic part contains 'C' and is released as CO_2 during the burning process.

Constant weight of crucible: A crucible is weighed after it is left at a certain temperature (e.g. at a temperature of 600-800 ^{o}C in furnace) for a certain period of time until the difference between the last 2 weights is found to be ± 0.3 mg.

Experimental Procedure:

- Take out the crucibles, which are brought to constant weight in the furnace at 600°C, using a heated tongs.
- Allow to cool in a desiccator and weighed on precision balance.(P)
- Weigh 1.00 g of powdered sample in the crucible.(P1)
- Heat the crucible in a slightly inclined position on the triangular porcelain(for the homogeneous spread of heat and not to lose the ash) on the burner, burn off the sample over a light fire until the content of crucible is black and over a high heat until it turns into white ash. (pre-ashing process).
- Put the crucible in a muffle furnace at 600°C by a heated tongs, leave for 1 hour in the furnace, then allow the crucible at constant weight to cooldown in desiccator and weigh.(P2)

- Amount of sample : P1- P = A g
- Amount of ash: P2 – P = B g
- A g sample B g ash
- 100 X= % ash (a/a)