

Aim :-

Extraction of starch from potato.

Reference :-

Kokate C.K., Purohit A.P., Gokhale S.B., Nirali publication, 56th edition, Page no. - 8.36 - 8.39.

Requirement :-

Glassware :-

- Beaker
- Glass rod
- Separating funnel
- Watch glass.

Material :-

- Fresh potatoes
- Knife
- Mortar and pestle
- Filter paper
- Tripod
- Grinder
- Sieve (different mesh size)
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### Theory :-

Starch is an important polysaccharide found in plant sources. The microscopic appearance of starch is in the form of granules. It is typical for the individual starch granules. They differ in size depending on the source from which they isolated. Starch is insoluble in water and rapidly settles at the bottom and can be collected by decanting the supernatant.

The starch molecules comprise a large number of glucose units that are bound together by glycosidic bonds and are produced by all vegetables and other plant sources through the process of photosynthesis.

The starch molecules function as energy storage in plant cells, which is necessary for their growth, development, and reproduction. Barley, potatoes, maize, rice, wheat are a few examples of plant products from which starch are extracted and distributed to different industries.

### Procedure :-

- Take required amount of potatoes and peel off the outer layer of potatoes.



- The fresh potatoes cut into small pieces and place them into a grinder and stir for 1 to 2 minutes.
- The grinding process is repeated for 3 to 4 times till we get a homogenous suspension.
- Transfer the slurry into a beaker and allow standing for few minutes and then noting the deposition of starch slowly-slowly at the bottom of beaker.
- Pour the supernatant fluid and fill the beaker with water containing starch in it, stir well and again allow to settle down the starch.
- Repeat 4 to 5 times by separating starch that can washed thoroughly. Collect the white deposited starch on the watch glass.
- Dry it in a oven or direct sunlight then weigh the sample.

### Result:

The experiment "Extraction of starch from potatoes" are successfully performed in laboratory (Pharmacognosy).

And the amount of sample (starch) =