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Starch, Soluble, Purified:

White, amorphous powder; under microscopic examination it shows the characteristic form of potato starch. Soluble in hot water; very slightly soluble in alcohol.

Test Solution for Determination of pH and Sensitivity: Stir 2.0 g in 10 mL of water, add boiling water to make 100 mL, and boil for 2 minutes. The hot solution is almost clear. On cooling, the solution may become opalescent or turbid, but does not gel. Use it as the *Test solution*.

pH (791): The pH of the *Test solution* is between 6.0 and 7.5.

Sensitivity: Mix 2.5 mL of *Test solution*, 97.5 mL of water, and 0.50 mL of 0.010 N iodine: a distinct blue color results, and it disappears upon the addition of 0.50 mL of 0.010 N sodium thiosulfate.

Absorbance: Prepare a pH 5.3 buffer solution by dissolving 43.5 g of sodium acetate (trihydrate) and 4.5 mL of glacial acetic acid in water, transferring the resultant solution to a 250-mL volumetric flask, adding water to volume, and mixing.

Dissolve 1.00 g of Soluble Purified Starch in 2.5 mL of the buffer solution by warming, transfer to a 100-mL volumetric flask, add water to volume, and mix. Add 0.50 mL of this solution to a 100-mL volumetric flask containing about 75 mL of water, 1 mL of 1 N hydrochloric acid, and 1.5 mL of 0.020 N iodine, swirling the flask during the addition. Add water to volume, mix, and allow to stand in the dark for 1 hour. The absorbance of this solution, measured at 575 nm in a 1-cm cell against a blank, is between 0.5 and 0.6.

Reducing Substances: Shake 10.0 g with 100 mL of water for 15 minutes, and allow to settle for about 12 hours. Filter a portion of the supernatant through fine sintered glass. To 50 mL of the filtrate add 50 mL of alkaline cupric tartrate TS, and boil for 1 to 2 minutes. Filter the resulting cuprous oxide, wash it with hot water and then with alcohol, and dry it at 105° for 2 hours: not more than 47 mg is found, corresponding to 0.7% of reducing sugars as maltose.

Loss on Drying (731): Dry it at 105° for 2 hours: it loses not more than 10% of its weight.

Residue on Ignition (281): not more than 0.5%.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
STARCH, SOLUBLE, PURIFIED	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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