Edition: BP 2025 (Ph. Eur. 11.6 update)

Tapioca Starch

General Notices

Cassava Starch

Action and use

Excipient.

When Starch is specified and the type is not indicated, Maize Starch, Potato Starch, Rice Starch, Wheat Starch or, in tropical and sub-tropical countries where these are not available, Tapioca Starch may be supplied or used.

DEFINITION

Tapioca Starch is obtained from the rhizomes of *Manihot utilissima* Pohl.

CHARACTERISTICS

Very fine powder which creaks when pressed between the fingers.

Practically insoluble in cold *water* and in *ethanol (96%)*.

IDENTIFICATION

A. Principally simple granules, subspherical, muller-shaped or rounded polyhedral; smaller granules 5 to 10 µm, larger granules 20 to 35 µm in diameter; hilum, central, punctate, linear or triradiate; striations, faint, concentric; compound granules, few, of two to three unequal components.
B. Heat to boiling a suspension of 1 g in 50 mL of *water* for 1 minute and cool. A thin, cloudy mucilage is formed.
C. Mix 0.05 mL of *iodine solution R1* with 1 mL of the mucilage obtained in test B. A dark blue colour is produced which disappears on heating and reappears on cooling.

TESTS

Acidity

Add 10 g of the starch to 100 mL of *ethanol (70%)* previously neutralised to 0.5 mL of *phenolphthalein solution*, shake for 1 hour, filter and titrate 50 mL of the filtrate with *0.1M sodium hydroxide VS*. Not more than 2.0 mL is required to change the colour of the solution.

Foreign matter

Not more than traces of cell membranes and protoplasm are present.

Loss on drying

When dried to constant weight at 100° to 105°, loses not more than 15.0% of its weight. Use 1 g.

Sulfated ash

Not more than 0.6%, Appendix IX A, Method II. Use 1 g.

Microbial contamination

1.0 g is free from *Escherichia coli,* Appendix XVI B1.

STORAGE

Tapioca Starch should be kept in an airtight container.