Quality standards

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

Ferrous Gluconate Tablets

General Notices

Action and use

Used in prevention and treatment of iron deficiency.

DEFINITION

Ferrous Gluconate Tablets contain Ferrous Gluconate Hydrate. They are coated.

The tablets comply with the requirements stated under Tablets and with the following requirements.

Content of ferrous iron, Fe(II)

90.0 to 105.0% of the stated amount.

IDENTIFICATION

- A. Shake a quantity of the powdered tablets containing 0.5 g of Ferrous Gluconate Hydrate with 10 mL of <u>acid</u>, filter and add to the filtrate 1 mL of <u>barium chloride solution</u>. An opalescence may be produced but no precipitate is produced.
- B. The powdered tablets yield reaction A characteristic of *iron salts*, Appendix VI.

TESTS

Ferric iron

Dissolve a quantity of the powder prepared for the Assay containing 5 g of Ferrous Gluconate Hydrate as completely as possible, without heating, in a mixture of 100 mL of freshly boiled and cooled <u>water</u> and 10 mL of <u>hydrochloric acid</u>; add 3 g of <u>potassium iodide</u>. Close the vessel, allow to stand in the dark for 5 minutes and titrate the liberated iodine with 0.1 m <u>sodium thiosulfate VS</u> using <u>starch mucilage</u> as indicator. Repeat the operation without the powder. The difference between the titrations represents the amount of iodine liberated by the ferric iron. Not more than 11.2 mL of 0.1 m <u>sodium thiosulfate VS</u> is required.

ASSAY

Weigh and powder 20 tablets. Dissolve a quantity of the powder containing 1 g of Ferrous Gluconate Hydrate as completely as possible in a mixture of 30 mL of <u>water</u> and 20 mL of 1M <u>sulfuric acid</u> and titrate with <u>0.1M ammonium</u> <u>cerium(IV) sulfate VS</u> using <u>ferroin solution</u> as indicator. Each mL of <u>0.1M ammonium cerium(IV) sulfate VS</u> is equivalent to 5.585 mg of Fe(II).

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LABELLING

The quantity of active ingredient is stated both as the amount of ferrous gluconate and in terms of the equivalent amount of ferrous iron.