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

Compound Magnesium Trisilicate Chewable Tablets

General Notices

Aluminium Hydroxide and Magnesium Trisilicate Tablets

Chewable Compound Magnesium Trisilicate Tablets

DEFINITION

Compound Magnesium Trisilicate Chewable Tablets contain, in each, 250 mg of Magnesium Trisilicate and 120 mg of Dried Aluminium Hydroxide. They have a peppermint flavour.

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

Content of aluminium, Al

28 to 40 mg.

Content of magnesium, Mg

30 to 41 mg.

TESTS

Disintegration

The requirement for Disintegration does not apply to Compound Magnesium Trisilicate Chewable Tablets.

Neutralising capacity

Weigh and powder 20 tablets. Pass the powder as completely as possible, regrinding if necessary, through a sieve of nominal mesh aperture about 75 µm and remix the sifted powder. Mix a quantity equivalent to two tablets with a small quantity of *water*, added slowly with stirring, to give a smooth paste and slowly add further quantities of *water*, with stirring, to a total volume of 100 mL. Warm to 37°, add 100 mL of *0.1M hydrochloric acid VS* previously heated to 37° and stir continuously, using a suitable paddle stirrer at a rate of about 200 revolutions per minute, maintaining the temperature at 37°. The pH of the suspension at 37°, after 10, 15 and 20 minutes, is not less than 2.0, 2.4 and 2.7 respectively and at no time during this period is it more than 4.0. Add 10 mL of *0.5M hydrochloric acid VS* previously heated to 37°, stir continuously for 1 hour maintaining the temperature at 37° and titrate with *0.1M sodium hydroxide VS* to pH 3.5. Subtract the volume of *0.1M sodium hydroxide VS* from 150 mL to obtain the number of mL of *0.1M hydrochloric acid VS* required for the neutralisation. Not less than 50 mL of *0.1M hydrochloric acid VS* is required to neutralise one tablet.

ASSAY

For aluminium

Weigh and powder 20 tablets. To a quantity of the powder equivalent to two tablets add 7 mL of *hydrochloric acid* and 7 mL of *water*, stir and heat on a water bath for 15 minutes, stirring occasionally. Add 30 mL of hot *water*, mix and filter whilst hot, washing the filter well with hot *water*. Cool the combined filtrate and washings and dilute to 100 mL with *water*. Reserve 25 mL for the Assay for magnesium. To 30 mL add 70 mL of *water* and 40 mL of 0.05M *disodium edetate VS*. Add 0.2 mL of *methyl red solution*, neutralise to the orange colour of the indicator with 1M *sodium hydroxide* and heat on a water bath for 30 minutes. Cool, add 3 g of *hexamine* and titrate the excess of disodium edetate with 0.05M *lead nitrate VS* using *xylenol orange solution* as indicator. Each mL of 0.05M *disodium edetate VS* is equivalent to 1.349 mg of Al.

For magnesium

To 25 mL of the solution reserved in the Assay for aluminium add 1 g of *ammonium chloride* and 10 mL, or a quantity sufficient to redissolve the precipitate that is produced, of *triethanolamine*. Add 150 mL of *water* and 5 mL of *ammonia buffer pH 10.9* and titrate immediately with 0.05M *disodium edetate VS* using *mordant black 11 solution* as indicator. Each mL of 0.05M *disodium edetate VS* is equivalent to 1.215 mg of Mg.