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Magnesium Trisilicate Tablets

» Magnesium Trisilicate Tablets contain not less than 90.0 percent and not more than 110.0 percent of the labeled amount of $Mg_2Si_3O_8$.

Packaging and storage—Preserve in well-closed containers.

Identification—

A: Powder 1 Tablet, add 10 mL of 3 N hydrochloric acid and 5 drops of methyl red TS, heat to boiling, add 6 N ammonium hydroxide until the color of the solution changes to deep yellow, then continue boiling for 2 minutes, and filter: the filtrate so obtained responds to the tests for [Magnesium \(191\)](#).

B: Wash the solids on the filter obtained in *Identification* test A with hot ammonium chloride solution (1 in 50), add 10 mL of 3 N hydrochloric acid, and filter. Transfer the filter paper and contents to a small platinum dish, ignite, cool in a desiccator, and weigh. Moisten the residue with water, and add 6 mL of hydrofluoric acid. Evaporate to dryness, ignite for 5 minutes, cool in a desiccator, and weigh: a loss of more than 10% in relation to the weight of the residue from the initial ignition indicates SiO_2 .

DISINTEGRATION (701): 10 minutes, simulated gastric fluid TS being substituted for water in the test.

UNIFORMITY OF DOSAGE UNITS (905): meet the requirements.

ACID-NEUTRALIZING CAPACITY (301): Not less than 5 mEq of acid is consumed by the minimum single dose recommended in the labeling.

Assay—Weigh and finely powder not fewer than 20 Tablets. Transfer an accurately weighed portion of the powder, equivalent to about 1 g of magnesium trisilicate, to a beaker, add 20 mL of water, and slowly add 40 mL of 3 N hydrochloric acid, with mixing. Heat the mixture to boiling, cool, and filter into a 200-mL volumetric flask. Wash the beaker with water, adding the washings to the filter. Add water to volume, and mix. Transfer 20.0 mL of this solution to a 400-mL beaker, add 180 mL of water and 20 mL of triethanolamine, and stir. Add 10 mL of ammonia–ammonium chloride buffer TS and 3 drops of an eriochrome black indicator solution prepared by dissolving 200 mg of eriochrome black T in a mixture of 15 mL of triethanolamine and 5 mL of dehydrated alcohol, and mix. Cool the solution to between 3° and 4° by immersion of the beaker in an ice bath, then remove, and titrate with 0.05 M edetate disodium VS to a blue endpoint. Perform a blank determination, substituting 20 mL of water for the assay solution, and make any necessary correction. Each mL of 0.05 M edetate disodium consumed is equivalent to 6.521 mg of $Mg_2Si_3O_8$.

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

Topic/Question	Contact	Expert Committee
MAGNESIUM TRISILICATE TABLETS	Documentary Standards Support	SM32020 Small Molecules 3
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM32020 Small Molecules 3

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. Information currently unavailable

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