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Calcium Polycarbophil

Calcium polycarbophil

CAS RN®: 9003-97-8; UNII: 8F049NKY49.
» Calcium Polycarbophil is the calcium salt of polyacrylic acid cross-linked with divinyl glycol.

Packaging and storage—Preserve in tight containers.

Identification—When tested as directed in the test for *Absorbing power*, it absorbs about 35 times its original weight.

Loss on drying (731)—Dry it in vacuum at 130° for 4 hours: it loses not more than 10.0% of its weight.

Absorbing power—Transfer about 250 mg, accurately weighed, to a tared 50-mL centrifuge tube fitted with a tight closure. Add 35 mL of 0.1 N hydrochloric acid to the tube, seal the tube, and shake by mechanical means for 30 minutes. Centrifuge at 2000 rpm for 20 minutes, and decant and discard the supernatant. [NOTE—Exercise care to avoid any loss of particles.] Add 35 mL of 0.1 N hydrochloric acid, and shake for 30 minutes. Centrifuge, decanting and discarding the supernatant. Repeat the foregoing steps, using water instead of acid. Add 35 mL of a sodium bicarbonate solution (15 in 1000), and shake, venting as necessary to release any carbon dioxide liberated. Shake for 1 hour, centrifuge, and decant the supernatant. Add 35 mL of sodium bicarbonate solution (15 in 1000), and shake for 1 hour. Allow the tube and contents to stand overnight or until the contents have settled, and centrifuge. Withdraw the supernatant, and weigh the tube and contents. Calculate the weight of sodium bicarbonate solution absorbed: not less than 35.0 g of the sodium bicarbonate solution is absorbed by 1.0 g of Calcium Polycarbophil, calculated on the dried basis.

Content of calcium—Transfer about 2 g of Calcium Polycarbophil, accurately weighed, to a tared crucible. Cover, leaving the lid slightly ajar, and place in a muffle furnace. Heat to 600° over 2 hours, increase the temperature to 1000° over 1 hour, and maintain at 1000° for 1 hour. Allow to cool slowly. Dissolve the residue in dilute hydrochloric acid (1 in 5), quantitatively transfer with the aid of dilute hydrochloric acid (1 in 5) to a 100-mL volumetric flask, and dilute with dilute hydrochloric acid (1 in 5) to volume. Pipet 15 mL of this solution into a 250-mL beaker, and add, while stirring with a magnetic stirrer, 100 mL of water, 20.0 mL of 0.05 M edetate disodium VS, and 300 mg of hydroxy naphthol blue. Adjust with 1 N sodium hydroxide solution to a pH of 9.0 to 9.5. Adjust with about 10 mL of 2 N sodium hydroxide to a pH of 12.4. Titrate with 0.05 M edetate disodium VS to a persistent blue endpoint. Each mL of 0.05 M edetate disodium is equivalent to 2.004 mg of calcium (Ca). The content of Ca found is not less than 18.0% and not more than 22.0%, calculated on the dried basis.

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

Topic/Question	Contact	Expert Committee
CALCIUM POLYCARBOPHIL	Documentary Standards Support	SM32020 Small Molecules 3

Chromatographic Database Information: [Chromatographic Database](#)

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