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Calcium Caseinate

—White or slightly yellow, nearly odorless, powder. Insoluble in cold water, but forms a milky solution when suspended in water, stirred, and heated.

Residue on ignition ⟨Reagent test⟩**:** Ignite 5 g at 550°: the residue weighs between 150 and 300 mg (3.0% to 6.0%).

Calcium: Treat the residue from the preceding test with 10 mL of diluted hydrochloric acid, filter, and to the clear filtrate add 5 mL of ammonium oxalate TS: it shows a white precipitate upon standing.

Loss on Drying ⟨731⟩**:** Dry it in vacuum at 70° to constant weight: it loses not more than 7.0% of its weight.

Fat: Suspend 1.0 g in 5 mL of alcohol in a Mojonnier flask, add 0.8 mL of stronger ammonia water and 9 mL of water, and shake. Add a second 5-mL portion of alcohol, then add successive portions of 25 mL each of ether and solvent hexane, shaking after each addition by inverting the flask 30 times. Centrifuge, decant the solvent layer, evaporate it at a low temperature, and dry on a steam bath: the residue weighs not more than 20 mg (2.0%).

Nitrogen Determination ⟨461⟩, *Method I* **:** Between 12.5% and 14.3% of N is found, calculated on the anhydrous basis.

Suspensibility in Water: Place 2 g in a beaker, and add cool water slowly with stirring to form a thin, smooth paste. Add additional water to make a total of 100 mL. Stir, and heat to 80°: a milky suspension is formed that does not settle after standing for 2 hours.

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
CALCIUM CASEINATE	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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