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

Light Kaolin

General Notices

Action and use

Antidiarrhoeal.

Preparations

Kaolin Mixture

Kaolin and Morphine Mixture

When Kaolin or Light Kaolin is prescribed or demanded, Light Kaolin shall be dispensed or supplied unless it is ascertained that Light Kaolin (Natural) is required.

DEFINITION

Light Kaolin is a native hydrated aluminium silicate, freed from most of its impurities by elutriation and dried. It contains a suitable dispersing agent.

CHARACTERISTICS

A light, white powder free from gritty particles; odourless or almost odourless; unctuous.

Practically insoluble in *water* and in mineral acids.

IDENTIFICATION

A. To 0.5 g in a metal crucible add 1 g of *potassium nitrate* and 3 g of *sodium carbonate* and heat until the mixture melts. Allow to cool. To the residue add 20 mL of boiling *water*, mix and filter. Wash the residue with 50 mL of *water*, add to the residue 1 mL of *hydrochloric acid* and 5 mL of *water*, mix and filter. To the filtrate add 1 mL of *strong sodium hydroxide solution*, filter and add to the filtrate 3 mL of *ammonium chloride solution*. A gelatinous white precipitate is produced.

B. 0.25 g yields the reaction characteristic of *silicates*, Appendix VI.

C. Triturate 2 g with 2 mL of *water*. The resulting mixture flows.

TESTS

Coarse particles

Transfer 5 g to a stoppered cylinder (about 16 cm × 35 mm), add 60 mL of a 1% w/v solution of *sodium pyrophosphate*, shake thoroughly and allow to stand for 5 minutes. Using a pipette, withdraw 50 mL from a point about 5 cm below the surface of the liquid. To the remaining liquid add 50 mL of *water*, shake, allow to stand for 5 minutes and withdraw 50 mL in the same manner as before. Repeat the operation until a total of 400 mL of suspension has been withdrawn under the prescribed conditions. Transfer the remainder to an evaporating dish and evaporate to dryness on a water bath. The residue, after drying at 105°, weighs not more than 25 mg.

Fine particles

Disperse 5 g in 250 mL of *water* by shaking vigorously for 2 minutes in a stoppered flask, pour immediately into a glass cylinder 5 cm in diameter and transfer 20 mL to a glass dish using a pipette. Evaporate to dryness and dry to constant weight at 105°. Allow the remainder of the suspension to stand for 4 hours at 20° and withdraw a second 20 mL portion using a pipette with its tip exactly 5 cm below the surface and without disturbing the sediment. Transfer the second portion to a glass dish, evaporate to dryness and dry to constant weight at 105°. The weight of the residue from the second portion is not less than 70% of the weight of the residue from the first portion.

Arsenic

0.50 g dispersed in 25 mL of *water* complies with the *limit test for arsenic*, Appendix VII (2 ppm).

Chloride

Boil 1.0 g with 80 mL of *water* and 20 mL of 2M *nitric acid* under a reflux condenser for 5 minutes, cool and filter. 15 mL of the filtrate complies with the *limit test for chlorides*, Appendix VII (330 ppm).

Loss on drying

When dried to constant weight at 105°, loses not more than 1.5% of its weight. Use 1 g.

Loss on ignition

When ignited at 600°, loses not more than 15.0% of its weight. Use 1 g.

Soluble matter

Boil 2 g with 100 mL of 0.2M *hydrochloric acid* under a reflux condenser for 5 minutes, cool, filter and evaporate 50 mL of the filtrate to dryness. The residue, after ignition at about 600° for 30 minutes, weighs not more than 10 mg.