

10 minutes: a yellow color is produced (paraformaldehyde).

(2) To the diethyl ether layer obtained in (1) add 5 mL of dilute hydrochloric acid and 20 mL of water, shake well, and separate the water layer: the solution responds to the Qualitative Tests for primary aromatic amines (procaine hydrochloride).

(3) To 0.15 g of Dental Paraformaldehyde Paste add 25 mL of diethyl ether and 25 mL of water, shake, separate the water layer, filter, and use the filtrate as the sample solution. Separately, dissolve 0.01 g of procaine hydrochloride in 5 mL of water, and use this solution as standard solution. Perform the test with these solutions as directed under the Thin-layer Chromatography. Spot 5  $\mu$ L each of the sample solution and the standard solution on a plate of silica gel with fluorescent indicator for thin-layer chromatography. Develop the plate with a mixture of ethyl acetate, ethanol (99.5) and ammonia solution (28) (50:5:1) to a distance of about 10 cm, and air-dry the plate. Examine under ultraviolet light (main wavelength: 254 nm): spots from the sample solution and the standard solution show the same *R<sub>f</sub>* value.

**Containers and storage** Containers—Tight containers.

## Peach Kernel

### *Persicae Semen*

トウニン

Peach Kernel is the seed of *Prunus persica* Batsch or *Prunus persica* Batsch var. *dauidiana* Maximowicz (*Rosaceae*).

**Description** Flattened, asymmetric ovoid seed, 1.2 – 2.0 cm in length, 0.6 – 1.2 cm in width, and 0.3 – 0.7 cm in thickness; somewhat sharp at one end, and round at the other end with chalaza; seed coat red-brown to light brown; externally, its surface being powdery by easily detachable stone cells of epidermis; numerous vascular bundles running and rarely branching from chalaza through the seed coat, and, appearing as dented longitudinal wrinkles; when soaked in boiling water and softened, the seed coat and thin, translucent, white albumen easily separated from the cotyledone; cotyledone white in color. Almost odorless; taste, slightly bitter and oily.

Under a microscope, the outer surface of seed coat reveals polygonal, long polygonal, or obtuse triangular stone cells on the protrusion from vascular bundles, shape of which considerably different according to the position, and their membranes almost equally thickened; in lateral view, appearing as a square, rectangle or obtuse triangle.

**Identification** To 1.0 g of ground Peach Kernel add 10 mL of methanol, immediately heat under a reflux condenser on a water bath for 10 minutes, cool, filter, and use the filtrate as the sample solution. Separately, dissolve 2 mg of amygdalin for thin-layer chromatography in 1 mL of methanol, and use this solution as the standard solution. Perform the test with these solutions as directed under the Thin-layer Chromatography. Spot 10  $\mu$ L each of the sample solution and the standard solution on a plate of silica gel for thin-layer chromatography. Develop the plate with a mixture of ethyl

acetate, methanol and water (7:3:1) to a distance of about 10 cm, and air-dry the plate. Spray evenly dilute sulfuric acid upon the plate, and heat at 105°C for 10 minutes: one spot among the spots from the sample solution and a brown to dark green spot from the standard solution show the same color tone and the same *R<sub>f</sub>* value.

**Purity** (1) Rancidity—Grind Peach Kernel with boiling water: no odor of rancid oil is perceptible.

(2) Foreign matter—Peach Kernel does not contain broken pieces of endocarp or other foreign matter.

## Powdered Peach Kernel

### *Persicae Semen Pulveratum*

トウニン末

Powdered Peach Kernel is the powder of the Peach Kernel.

**Description** Powdered Peach Kernel occurs as a reddish-light brown to light brown powder. It has a almost odorless and slightly bitter taste and oily.

Under a microscope, Powdered Peach Kernel fragments of outer seed coat epidermis; elliptical to ovoid, containing yellowish brown compound 50 to 80  $\mu$ m in diameter and stone cell; cap-like shape to ovoid, yellowish brown in color. The stone cell is element of epidermis, 50 to 80  $\mu$ m in diameter and 70 to 80  $\mu$ m in height, cell wall of the top, 12 to 25  $\mu$ m thickness, the base 4  $\mu$ m in thickness, with obvious and numerous pits. Inner seed coat, yellowish brown, irregular and somewhat long polygon, 15 to 30  $\mu$ m in diameter; and fragments of cotyledon and albumen containing aleurone grains and fatted oil, Aleurone grains are almost spherical grains, 5 to 10  $\mu$ m in diameter.

**Identification** Grind Powdered Peach Kernel with water: the odor of benzaldehyde is perceptible.

**Loss on drying** Not more than 8.5% (6 hours).

**Total ash** Not more than 3.5%.

**Acid-insoluble ash** Not more than 0.5%.

**Containers and storage** Containers—Tight containers.

## Peanut Oil

### *Oleum Arachidis*

ラッカセイ油

Peanut Oil is the fixed oil obtained from the seeds of *Arachis hypogaea* Linné (*Leguminosae*).

**Description** Peanut Oil is a pale yellow, clear oil. It is odorless or has a slight odor. It has a mild taste.

It is miscible with diethyl ether and with petroleum ether.

It is slightly soluble in ethanol (95).

Specific gravity  $d_{25}^{25}$ : 0.909 – 0.916

Congealing point of the fatty acids: 22 – 33°C