

130°C for 2 hours. Cool, and titrate with 0.1 mol/L perchloric acid VS (potentiometric titration). Perform a blank determination, and make any necessary correction.

Each mL of 0.1 mol/L perchloric acid VS  
= 2.2990 mg of Na

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

## Carnauba Wax

### *Cera Carnauba*

カルナウバロウ

Carnauba Wax is the wax obtained from the leaves of *Copernicia cerifera* Mart (*Palmae*).

**Description** Carnauba Wax occurs as light yellow to light brown, hard and brittle masses or white to light yellow powder. It has a slight, characteristic odor. It is tasteless.

It is practically insoluble in water, in ethanol (95), in diethyl ether and in xylene.

Specific gravity  $d_{20}^{20}$ : 0.990 – 1.002

Melting point: 80 – 86°C

**Acid value** Not more than 10.0. Use a mixture of xylene and ethanol (95) (2:1) as solvent.

**Saponification value** 78 – 95 Weigh accurately about 3 g of Carnauba Wax in a 300-mL flask, add 25 mL of xylene, and dissolve by warming. To this solution add 50 mL of ethanol (95) and exactly 25 mL of 0.5 mol/L potassium hydroxide-ethanol VS, and proceed as directed in the Saponification value under the Fats and Fatty Oils. The time of heating should be 2 hours and the titration should be done by warming.

**Iodine value** 5 – 14 (Dissolve the sample by shaking a glass-stoppered flask in warm water.)

**Containers and storage** Containers—Well-closed containers.

## Cassia Seed

### *Cassiae Semen*

ケツメイシ

Cassia Seed is the seed of *Cassia obtusifolia* Linné or *Cassia tora* Linné (*Leguminosae*).

**Description** Short cylindrical seed, 3 – 6 mm in length, 2 – 3.5 mm in diameter; acuminate at one end and flat at the other; externally green-brown to brown and lustrous, with light yellow-brown longitudinal lines or bands on both sides; hard in texture; cross section round or obtuse polygonal; under a magnifying glass, albumen enclosing a bent, dark-colored cotyledon. When ground, characteristic odor and taste.

**Identification** Place 0.1 g of pulverized Cassia Seed, previ-

ously dried in a desiccator (silica gel) for 48 hours, on a slide glass, put a glass ring 10 mm in both internal diameter and height on it, then cover with moistened filter paper, and heat gently the slide glass over a small flame. Take off the filter paper when a yellow color has developed on the upper surface of it, and place 1 drop of potassium hydroxide TS on the surface of the filter paper where a sublimate is present: a red color appears.

**Purity** Foreign matter—The amount of foreign matter contained in Cassia Seed does not exceed 1.0%.

**Total ash** Not more than 5.0%.

## Castor Oil

### *Oleum Ricini*

ヒマシ油

Castor Oil is the fixed oil obtained by compression from the seeds of *Ricinus communis* Linné (*Euphorbiaceae*).

**Description** Castor Oil is a colorless or pale yellow, clear, viscous oil. It has a slight, characteristic odor, and has a bland at first, and afterwards slightly acrid taste.

It is miscible with ethanol (99.5) and with diethyl ether.

It is freely soluble in ethanol (95), and practically insoluble in water.

When cooled to 0°C, it becomes more viscous, and turbidity is gradually formed.

**Identification** To 3 g of Castor Oil add 1 g of potassium hydroxide, and heat the mixture carefully to fuse: a characteristic odor is perceptible. Dissolve the fused matter in 30 mL of water, add an excess of magnesium oxide, and filter. Acidify the filtrate with hydrochloric acid: white crystals is produced.

**Specific gravity**  $d_{25}^{25}$ : 0.953 – 0.965

**Acid value** Not more than 1.5.

**Saponification value** 176 – 187

**Hydroxyl value** 155 – 177

**Iodine value** 80 – 90

**Purity** Adulteration—Shake to mix 1.0 g of Castor Oil with 4.0 mL of ethanol (95): it dissolves clearly. Add 15 mL of ethanol (95): no turbidity is produced.

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